THE WORLD OF FREE SOFTWARE – YOUR MONTHLY GUIDE

AMIGA·PC·ST

PUBLIC DOMAIN

AMIGA • PC • ST

ISSUE 7 • £1.95
JUNE 1992

THE LATEST PD, SHAREWARE & LICENCEWARE REVIEWED

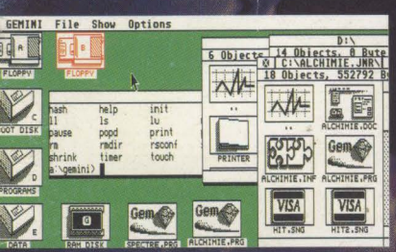
WELCOME TO THE HOUSE OF FUN

Play arcade classics and save those 10ps ...PAGE 9

IT SHOULDN'T BE ALLOWED...

We uncover the seedier side of PD ...PAGE 92

THE PRETTY FACE OF COMPUTING



The best in Graphic User Interfaces ...PAGE 73

FREAKED OUT BY FRACTALS!

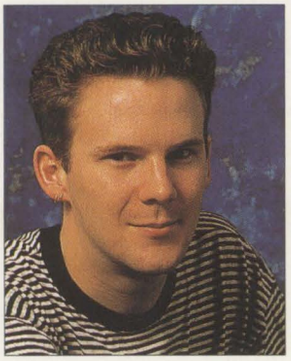
Take a trip into the exciting new world where calculated chaos creates mind-blowing patterns ...PAGE 33

PLUS: PUBLIC EYE: BUDGIE UK • NEW SERIES: DISK MAGAZINES • 21 JOYSTICKS UP FOR GRABS • COMMS

Future PUBLISHING
Your guarantee of value

9 770963 826016 06

PUBLIC DOMAIN

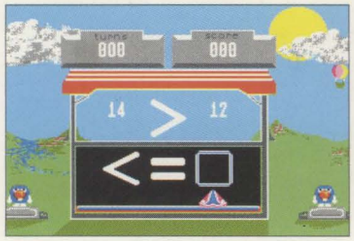


Welcome to issue seven of *Public Domain*. If you're a regular reader of the magazine then you're going to notice some changes.

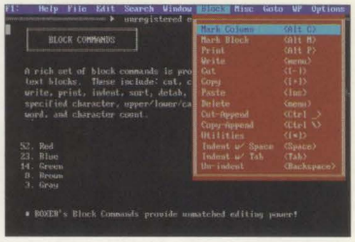
First of all, the price! We've reduced the cost from £2.95 to £1.95, a direct result of us dropping the cover disk.

This step has been taken largely as a response to your letters and the reader surveys we have carried out. The problem seems to be that while a tri-format disk is very clever and all that, it does rather limit the amount of programs we could include for each of the three machines. The money you save should be well spent on buying programs of your own choice!

In addition, we've tightened up the design of the reviews pages, making them clearer and more informative. We'd like to know what *you* think of what's happening to *your* magazine. Do you miss the disk? Is the new design looking good? That's why you'll find a reader survey form on page 80 – please take a few minutes to fill it out and return it.



Maths has never been so much fun. We check out *Early Learning Maths* on page 63



Top notch text editing with *Boxer*, reviewed in Business and Applications on page 83

THE PD TEAM – ISSUE 7

EDITORIAL/ADVERTISING
Future Publishing
30 Monmouth Street
Bath BA1 2BW
Tel: (0225) 442244
Fax: (0225) 446019

Editor Adam Waring
Art Editor Jacquie Spanton
Production Editor Dave Golder
Technical Editor Tim Howell
Advertising Executive Shaun Lancaster
Production Co-ordinator Claire Fullick

Circulation Director Sue Hartley
Promotions Manager Michele Harris
Publisher Jane Richardson
Assistant Publisher Julie Stuckes
Group Publishing Director Greg Ingham

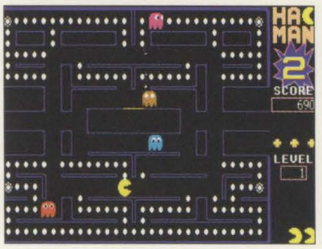
SUBSCRIPTIONS/MAIL ORDER
Future Publishing, Cary Court,
Somerton TA11 6TB
Tel: (0458) 74011

Subscriptions Christine Stacey
Mail Order Trevor Witt

CONT

5 News
If it's happening in the public domain you'll read it here first. The latest PD and shareware news

9 Arcade games



Space Invaders! *Missile Command*! *Pacman*! Thanks to the public domain you can relive all those arcade classics in the comfort of your own living room

14 Letters
Find out what's got PD and shareware users putting pen to paper this month

17 Win! Win! Win!
21 joysticks just waiting to be won

18 Reviews: Programming & Utilities
Beyond the games and the spreadsheets there's a host of software that can make your computer work for you. From graphics to communications public domain software has no limits

30 Comms
How to link up with computer users on the other side of the world for the cost of a local phone call

33 Fractals
OK, so they look pretty. But what exactly are fractals? Why are there so many different sorts?

How are they calculated? Is there any point to them? Why are they so popular in the public domain? Get ready for the most comprehensive and comprehensible lowdown on fractals you'll have ever read

38 Reviews: Games
All-action blast-'em-ups... tense oriental strategy games... sport sims... Whatever your favourite form of digital relaxation there's a PD or shareware game that'll suit your tastes

ENTS

Public Eye: Budgie 48

Coding group Budgie introduced the conecpt of licenceware to the public domain. We find out how the system works and how successful it has been

Reviews: Demos 52

Great graphics. Stunning sound. We weed out the demos that actually contain these things

Reviews: Home & Education 60

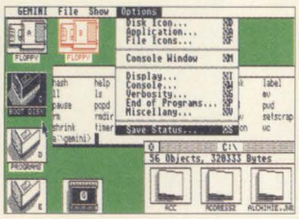
The latest specialist interest and early learning releases are put through their paces

Problem Solved! 70

If you've got a PD problem we can help you out

Graphic User Interfaces 73

Out, out, foul command line! Get thee behind me dreaded Shell. GUIs are here to make navigating through your files a frustration-free experience



Magnetic Media 78

The first in a new series looking at diskzines

Survey 80

We want to know what kind of people you are

Reviews: Business & Applications 82

Setting up a business might be an expensive affair, but you can save some cash without sacrificing any quality by making use of PD and shareware software

PD Porn 92

There are some sick people out there peddling pornographic software and destroying the reputation of the public domain by using PD libraries and bulletin boards to distribute it. We ask why so little seems to be being done about it

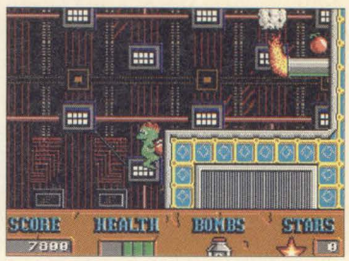
Subscribe now! 97

Get *Public Domain* delivered to your door every month

Index 98

Every program reviewed in this issue listed so that you can locate them in an instant

The best terminal program on the Amiga? *NComm* is tried and tested... page 24



Can *Cosmo's Cosmic Adventure* continue the Apogee success story? Find out on page 40

Your kids can get hold of stuff like this! What can be done about PD porn? Page 92

This month sees the first in a regular series of diskzine round-ups... page 78

NEW READERS START HERE

The public domain is a weird and wacky place where you can get all sorts of software at prices you wouldn't believe – some of it even free! Cheap doesn't mean nasty, though. A lot of it is every bit as good, if not better, than full-priced programs. But, we have to admit, there are some duds too. We aim to point you in the direction of the decent stuff and review all the software as if it were a commercial product; we're not going to be soft just because it's cheap.

If you're new to PD and don't know what all the different varieties are and how to get hold of the disks, this is the place to start...

What does it all mean?

- **Public domain:** A generic term which at its simplest and purest level refers to non-copyrighted software which can be distributed freely. You can copy a public domain disk with no fear of breaking copyright laws. If you order disks from a library, then in theory you should only be charged for the distribution and copying costs. Freeware is virtually the same as PD except that the author retains the copyright to his program and you are not allowed to alter the program in any way.
- **Shareware:** Operates on a try-before-you-buy basis. Distributed in the same way as PD software (your mates can copy it), the difference being that if you like the program and intend to use it regularly you are required to send off a registration fee. This is usually fairly minimal, and represents good value as some shareware programs rival commercial counterparts.
- **Licenceware:** Certain libraries are licensed to sell the software – it's not allowed to be sold for profit without official permission – and for every copy of the program sold the author receives a royalty. Some licenceware cannot be copied freely among friends – check with the doc files on the disk for this information.
- **Bannerware:** A cut-down version of a program is released as PD – usually with some feature disabled – as a teaser, in the hope that it'll impress you so much you'll want to buy the full-priced product.

Where to get PD software

There are hundreds of public domain and shareware libraries around the country who will send a disk packed full of software to you for a small copying charge. Most of the programs we review are available from more than one of them. We give the name of the library that sent us the software for review, but if you see a program that takes your fancy it will probably be available from other libraries as well, so there's no harm in shopping around. And don't forget to check out the adverts in this issue as well.

PC FORMAT THE MODERN GUIDE TO PERSONAL LEISURE COMPUTING

DISCOVER THE WORLD OF PC ENTERTAINMENT

MORE THAN £100 WORTH OF SOFTWARE AND TWO DISKS FOR £3.95

DON'T MISS issue 8 of *PC Format*, out on April 23, because not only has it got two 3.5-inch disks on it, but one of them contains *PFS: First Publisher*, a desktop publishing program worth more than £100.

There's a 13-page special feature on graphics, which guides you to all the best in software and hardware, and has tutorials on what to do once you've got them.

There's our usual indispensable coverage of PC games, including *Midwinter II, Shuttle, SimAnt, Another World* and *Carrier Command*. If that were not enough there are our regular columns on CD-ROM, music, shareware, problem solving and playing tips.

It's the only guide you need to having fun with your PC.

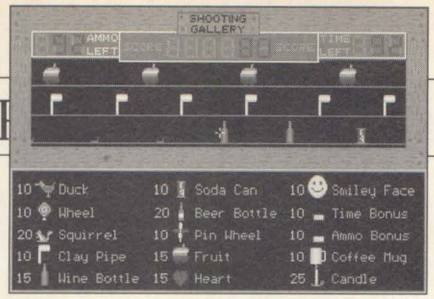
PC FORMAT
May 1992 ■ Issue Eight
3
.5-inch disks with this copy – also available with two 360k 5.25-inch disks
£3.95
The Modern Guide To Personal Leisure Computing
TWO DISKS! SOFTWARE WORTH MORE THAN £100
GET THE PICTURE
13-page special on how you can create stunning pictures on the PC
PC FORMAT DISK 1
ISSUE EIGHT
PFS: FIRST PUBLISHER
Spinnaker's complete, powerful desktop publishing program that would normally cost you more than £100
PC FORMAT DISK 2
ISSUE EIGHT
ELF
A playable preview of Ocean's action-packed graphic arcade adventure
TBSCANX
Detect viruses with this essential tool for all PCs
No Coverdisks? Then ask your newsagent for them. 2x3.5-inch disks with this copy.
Include graphi
Print
Monit
Digitise
Scanners
3D graphics
Tutorials
25 PAGES OF GAME REVIEWS
Midwinter II, Shuttle, SimAnt, Another World, Battle Isle, Carrier Command and many more
9 770963 552991 05
Future PUBLISHING
Your guarantee of value
PLUS: news from the Frankfurt music fair ■ CD-ROM, public domain and Q&A columns ■ WIN a day at an air show

For all this and more, make sure you get issue 8 of *PC Format* on April 23 and enter a new world of PC entertainment

Future PUBLISHING

Your guarantee of value

PUBLIC DOMAIN NEWS



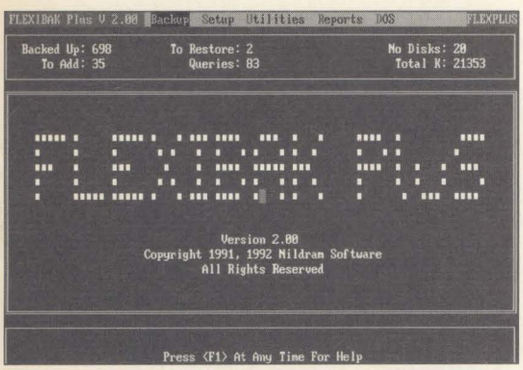
Games will also be covered in the Seminar, with authors, such as Nels Anderson, also giving game tips

US SEMINAR TO HOST SHAREWARE 'OSCARS'

Top shareware software and authors will be awarded with their very own 'oscars' at a major US shareware event this summer.

The 1992 Summer Shareware Seminar, is to take place in Indianapolis, USA between 19th and 21st June. Participants from all over the world will converge on the city to discuss shareware software and to present the Shareware Industry Awards; the 'Oscars' of shareware.

This is the second year of the Seminar and it is expected to considerably larger than the previous event. 400 people are expected to attend this year as opposed to 210 last summer. They will include people from all walks of the shareware industry, including authors, publishers, journalists and sysops, among others.



The author of *Flexibak Plus*, Adrian Mardlin, is one of the many programmers attending the 1992 Summer Shareware Seminar

On the second day of the event the Shareware Industry Awards will be presented, as voted by a committee of software authors. The awards are to honour the best and most innovative shareware products from the past ten years and are made up of the following categories: Utilities, Applications (such as word processors and spreadsheets), Graphics, Maths and Engineering, Education, Entertainment and Home/Hobby.

There are other award categories for the Best New Product, Best Overall Product and the Peoples' Choice Award. This award is based on the quality and technical excellence of a program rather than its popularity, and judged by shareware vendors, BBS sysops, and magazine polls. There is also an Achievement Award, which is awarded to a person, rather than a package.

The emphasis of the event is on how to make the business of shareware more profitable for everyone involved, including the users of the programs. One of the main ways of discussing this are the seminars which are to be held by experts in a number of different areas. These cover the whole spectrum of shareware software, including program development, support, distribution and marketing. The topics of these seminars range from how to make software easier to use and writing better documentation, to how to get publicity. Seminars on how to market programs, how to run a business and how to offer incentives for registration, are also planned.

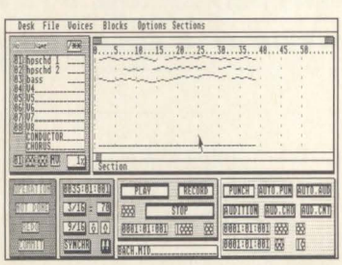
Because of the predominance of shareware software for the PC, compared to the Amiga and ST, the seminar will relate primarily to the PC industry, but many of the principles can be related to all three machines.

Public Domain hopes to bring you full details of the conference in a future issue. If you are interested in attending or want further information, contact Bob Ostrander on **0101-317-856-6052**. Don't forget to allow for the time difference.

MIDI music files on disk

Arrow PD has released four disks that contain over a hundred MIDI music files for the ST.

The disks have a wide range of music stored on them, ranging from classical pieces by Mozart and Beethoven, to more popular arrangements such as New Order's *Blue Monday* and Bon Jovi's *Living on a Prayer*. These files can be loaded into any MIDI program that supports the .MID MIDI file format.



***Accompanist* is one of the many programs able to use Arrow PD's MIDI music disks**

For more information, contact **Arrow PD at: 6 Kents Orchard, Perry Street, South Chard, Somerset TA20 2QB.**

AMIGA SHOPPER SHOW

A timely reminder...

Amiga owners, don't forget the Amiga Shopper Show, run by our sister magazine at the Wembley Exhibition Centre, London from 15th to 17th May.

The event is the only Amiga-dedicated show this spring and has a number of drawcards. Commodore's new Amiga 600 will be shown for the first time, as will the A570 CD-ROM drive which can be added on to Amiga 500s to give them CDTV compatibility. There is also a wide range of hardware and software manufacturers exhibiting at the show who will be offering their products at bargain prices.

For more information, call ☎ 051-356 5085

Just the facts...

If you've come across any news or information you think could interest the readers of *Public Domain*, why not share it with us?

We're interested in any news on software, events and other happenings in the world of PD and shareware software. If you have any information, please send it to: News, *Public Domain*, Future Publishing, 30 Monmouth Street, Bath BA1 2BW.

Or instead of using snail mail, you could leave a message to 'Public Domain' on any one of the following BBSs:

- **Bath BBS: 0225 840060**
- **01 For Amiga: 071-377 1358**
- **Shareware Support BBS: 0434 431861**

Program potpourri

The ST library Rust PD has gone for a different approach in supplying its PD programs.

When you require a specific program or set of programs from the company, instead of sending just those items it will package them together with a 'lucky dip' selection of other programs to fill up the disk. Not only that, the programs come in the form of self-extracting archives, which means that between 1.25 and 1.5Mb of software can be put on to a single disk.

To get a catalogue disk to see what PD software the company has in stock, send an SAE and two first class stamps to: Rust PDL, 361 Ordnance Road, Enfield Lock, Middlesex EN3 6HF ☎ 0992 717828

cont. on p6

cont. from p5

Let's go clubbing

Got an Atari STE? Then you need to know about The STE Club.

The Club is an organisation that has been recently formed to cater for owners of the Atari STE. It stocks a comprehensive range of STE-only PD, and offers help and advice to users of the computer who want to take full advantage of its features.

Membership to the club is free for the first two months, with members able to obtain STE PD at reduced prices and receive a monthly newsletter containing news about products for the computer.

To find out more about the organisation, write to: **The STE Club, The Lodge, Delly End, Hailey, Whitney, Oxon.**

PD packs

Essex Computer Services has put together a range of packs that contain business, home and educational public domain software for the Amiga.

There are currently five packs in the series: *Home and Business Packs 1* and *2, Catalogue and Database Pack, Home Help and Personal Finances Pack* and the *Educational Games Pack.*

Each pack contains several programs related to each other, along with their documentation on disk, and come in a plastic folder. The programs have been chosen for their A500 Plus compatibility, but to ensure this the programs are not always the latest versions.

Prices for the packs range from £2.25 for the *Home Help and Personal Finances Pack*, £3.99 for the *Catalogue and Database Pack* and £4.99 for the other three software packs.

For more information about the programs in each package, Essex Computer Systems can be reached at **118 Middle Crockerford, Basildon, Essex SS16 4JA ☎ 0268 553963**

Dates to remember

Amiga Shopper Show – May 14-17 – Wembley Exhibition Centre, London

All Formats Computer Fairs:

May 16	**Sandown Exhibition Centre, close to M25***
May 17	**Brunel Centre, Temple Meads, Bristol**
June 7	**City Hall, Candleriggs, Glasgow**
June 14	**Haydock Park, J23, M6**

***This is the planned venue for future fairs in London**

PD LIBRARY RAIDED

A recent raid on a prominent public domain library by trading standards officials could have widespread implications for PD software in general.

On 22 January the South West Software Library based in Wimbourne, Dorset had 42 public domain disks confiscated by Trading Standards officers because it was claimed they breached copyright laws.

"The disks were largely sound demos, such as Kate Bush and *Doctor Who*, there were a few slideshows as well as some cut-down commercial demos, such as *Protext*", said Martyn Dryden, proprietor of the library. "Other than that I have no comment".

The copyright issue is over whether the sound samples used in the music disks, and the digitised images used in the slideshows are breaches of copyright. As far as PD software is concerned there is no precedent to determine whether including samples or digitised images is a copyright breach. Legal problems have arisen in the past in the music industry, where house and dance songs have used samples taken from other songs, but there is still no clear definition as to what does or does not constitute copyright in these matters.

Digitised images from movies, such as this one from *Terminator 2*, contained on PD disks may be breaking copyright laws

Some of the confiscated disks were not related to the sound sampling and digitising issues but were cut-down versions of commercial programs, such as *Protext* or *Deluxe Paint*. As far as these programs are concerned there should be no problems as software houses often release cut-down demo versions of their programs for publicity purposes.

What they took

To get some idea of the kind of software involved, here is a list of the titles that were confiscated from the South West Software Library:

Trek Talk • S'Express • Ghostbusters • Running Up That Hill • Like A Prayer • Kylie • Voyages of the Enterprise – Then & Now • Encounter at Arcturus • Batman • Star Trek • Tiffany • Rocky Horror • I Think I'm a Clone Now • Batman III • Gremlins • Timeworks DTP demo version • Revolutions • Protext 5.5 demo version • I Want It All • Souvenir of China • Predator • Robocop II • Genesis • Mr Spoon • Dr Who Sound Demo • A Kind of Magic • Oxygene IV • Next Generation • Monty Python/Young Ones • Vogue • It's a Sin • Deluxe Paint demo version • Poison • Trash • Eternal Flame • Indiana Jones • Star Trek • Cartoon Time • NTWICM 8

PUBLIC DOMAIN READER ADS

Next issue *Public Domain* is starting a Reader Ads section so you can contact all the readers of the magazine.

If you're a PD library, BBS, user group, or you want to sell some hardware or software, then this is the ideal way to contact people.

To advertise, just fill in this form with the details of your message and enclose a cheque or postal order for £5, payable to Future Publishing Ltd. It is also possible to pay by credit card.

Don't forget: Write only one word per box and make sure you include your telephone number!

Name .....

Address .....

.....

Telephone .....

I enclose payment of £5 by **Cheque ● P.O ● Access ● Visa** *(please circle)*

Category **For Sale ● Wanted ● Services ● User groups** *(please circle)*

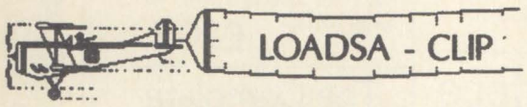
FORGET THE REST - BUY THE BEST

£1.75 OR £2.25

Per disk (10x51/4) Per disk (10x31/2)

ADD 20P PER DISK UNDER 10
ADD 80P PER DISK H/Density
ALL PRICES FULLY INCLUSIVE

PC SHAREWARE BARGAINS



FLORAL pcx clip flowers etc
BUSINESS MIX pcx 2 disks
GIRLIES pcx 1920's style
HOLIDAYS 48 pcx pics
GRIN pcx humour 2 disks
WACKY more pcx humour
MEN 53 pcx pics 3 disks
KIDS pcx pics over 1Mb
SEALIFE pcx sea-related
VEGGIES 26 pcx of veg.
CARTOONS 3 disks of pcx
FOOD & STUFF 2 disks
RESTAURANT pcx 3 disks
TREES & CHURCH pcx
GOLF HUMOUR 2 disks
OLYMPIC 22 sports pcx
MORE SPORTS pcx pics
DOGS pcx pics
SALETIME pcx slogans
BURCH. KIDS large pcx
HALLOWEEN pcx pics
WEDDINGS pcx 3 disks
WOMEN pcx 2 disks
SPORTS-2 2 disks
STUDENTS 2 disks pcx
BORDERS pcx 11 pics
SHOWTIME 37 pics
HUMOUR 47 img 4 disks
SCHOOL 38 pcx 2 disks
ANIMALS pcx 12 pics
CATS detailed pcx 2 disks
VANITY pre '60s 2 disks
SILHOUETTES excellent pcx
JAPAN pcx folklore etc
BOTANICAL flowers etc
FAMILY SCENES pcx 2 disks
ART NOUVEAU FLOWERS
SOFTSCENE 29 h/drawn pcx
NAVY ART 55 pcx pics
CHURCH & BIBLE 4 disks
CARTOONS 327 pcx 4 disks
BUTTERFLIES 15 pieces pcx
ORNATE CAPS 3 disks pcc
ACCENTS & FLASHES pcx
SYMBOLS pcx logos etc
MACART 2 disks 41 pics
GEMPICS 57 drawings .gem
CGM-ART 3 disks .cgm
HARVARD SYMBOLS .sys
TRAVEL 2 disks 900k+
SIXPACK 6 hi-res pcx
PUNCH 5 disks pcx cartoons
TRAXX 70 pcx pics
JC CARTOONS pcx 3 disks
SANSKRIT art etc pcx & pcc
TEDDY BEARS 51 pcx pics
CREATIVE 2 disks pcx
CORPORATE LOGOS pcx
BIRDS 59 pcx pics
HOUSES pcx 4 disks
MYTHS 19 pcx pics
MORE OFFICE 27 pcx pics
MEDICAL & CARTOONS pcx
SPACE & TRANSPORT

HUGO III. JUNGLE OF DOOM

The last and the best part of the Hugo series. Will Hugo outwit the evil Witch Doctor, find the mysterious pool of life and finally defeat his arch enemy, the old man? Spectacular 3D graphics help ensure this animated EGA/VGA game will be a sure winner. Hard disk req. 2 disks.

KEEN 4. GOODBYE GALAXY. EGA VGA.

New Keen adventure with more of the same super mix of ingenious puzzles and compulsive games play. Over 1.6Mb of super graphics with ad-lib support combined to make this the best release of the year. NB: Note that the CGA only version is also available. Hard disk req. 2 disks.

ONE NIGHT IN SWEDEN

A CGA semi-graphical text style adventure where the object is to solve the murder by clever use of the clues and questioning the suspects. Not as easy as it sounds - this might be a rather addictive adventure game. Swedish author can supply more of the same. 2 disks. Possible on floppys.

MORAFF'S WORLD

Brilliant D&D adventure with great graphics. Those who like this style of game will be pleased with this one. Supports all graphic models. Has a 3D style playing area and many races and monsters running riot in the 16 dungeon levels. Recommended. 1 disk.

SUPER MONO GAMES

Stuck with a mono monitor? - well this small selection has been tested to run on mono screens and provides a little light relief and should keep the kids happy for a few hours. Contains Brick Out, Cosmic, Go 4 It and more. Not the worlds greatest games, but good fun. Will run on CGA. 1 disk.

CADDIEHACK

An EGA golf game. Choose club power and aim and use one of five difficulty levels. Has both on the ball and overhead views and will keep scores and award handicaps. Helps with club selection and has wind, slanting greens, sand, water and trees on a testing 18 holes. EGA or better req. 1disk.

1000+ WINDOWS PROGRAMS IN CATALOGUE

THESE PROGRAMS NEED WINDOWS V3.00 AND SOME REQUIRE TOOLBOOK & SOME ADOBE T MANAGER

TRUE TYPE Fonts Set 1 (4 disks win 3.1)
TRUE TYPE Fonts Set 2 (4 disks win 3.1)
TRUE TYPE Fonts Set 3 (4 disks win 3.1)
ATM Fonts Set 1 4 disks
ATM Fonts Set 2 4 disks
ATM Fonts Set 3 4 disks
ATM Fonts Set 4 4 disks
ATM Fonts Set 5 4 disks
ATM Fonts Set 6 4 disks
ATM Fonts Set 7 4 disks
WINSQL SQL for windows
WINSPELL speller for windows
DRAGONS EYE collection - utilities
MR BITMAP replaces bitmaps
SCREENSHOW play auto desk SLI files
ELECTRONIC MUM diary type prog
SOUND TOOL play sound samples
CT-SHELL a great file manager
SHOWGIS view and catalog GIS files
CLICK FILER shell and file manager
WINDXF import/export/view auto cad
YOURWAY desk top manager
WIN TEXT info on windows
WIN KERMIT conns programs
SOUNDER digitised sound player
WINZIP & PMZIP archive shell
MICRO EMACS win text editor
VIS BASIC TOOLS 2 disks
PG FILE PRINTER for programmers
BIBLE WIN quote & questions
FRACTAL PAINT paint program
WIN ADV. C.Cave for windows
SLOOP replace prog manager
VCATWIN video tape catalogue
METZ Desktop Tools 2 disks
AUTO MTCE. Car prog for windows
NAVIGATOR explore drives etc
APORIA brill user interface
WINFRACT Windows Fractint
TOOLS including almanac
WINDOWS TEXT TOOLS various
TOOLBOOK APPS 4 disks
SCRAPBOOK 2 disks
WINCHECK checkbook program
MANDLEBROT for Windows
PIXFOLIO graphic catalog utility (2 disk)
WINBATCH Win 3 batch lang
WIN ICONS 2 over 800 icons
TOOLBOOK TUTOR 2 disk
TOOLBOOK MISCELLANY 2 disk
TOOLBOOK MAHJONG
PAINTSHOP graphics conversion

SOFTCELL SERVICES

25 Maywood, Brynna, Pontyclun, CF7 9PZ
TEL. 0443 238630 open 'til late

Shareware programs require separate payment to the author if found suitable.

Access
VISA

FREE CATALOGUE

Association of Shareware Professionals
Approved Vendor

High quality products. Full technical support.

Visit our Showrooms. See before you buy.

WeServe of Hampshire Established 7 years

New 24pin Colour*
Citizen 224

Enhanced 24pin printer, *optional colour
with easy to use control panel
2 year warranty. Price with cable & paper

Optional Colour kit £26.00 with printer
Amiga printer driver £5.00

£225

NEW
Amiga Workstation /Expansion System

Monitor stand with shelf for drives etc. Strong metal construction made from 14SWG steel epoxy coated Amiga colour.

Special price **£27.50**

New HP
Deskjet Colour

300dpi colour inkjet printer.
Colour laser quality at 1/10 of the cost.
3 year warranty. Price with cable & paper

£579

All Citizen printers have 2 year warranty

Swift 24E

Enhanced 24pin. Colour printer with cable & paper

£275

Printer Drivers

Citizen Swift Colour 5.00
Canon BJ-10e 4.95
Deskjet 500 Colour 9.95

Printer Dust Covers

most types in stock
from £4.70 inc VAT

Citizen Swift 9

with cable & paper

£175

Citizen 120D+

with cable & paper

£119

Panasonic KXP1123

Probably the best 24pin mono printer available. With cable & paper

£179

Panasonic/Epson

KXP1170 9pin	134
KXP1124i 24pin	227
KXP4420 Laser	728
Epson LX400 9pin	135
Epson LQ450 24pin	239
Epson LQ570 24pin	281
Epson 4100 Laser	839

Prices include VAT cable & paper

Deskjet 500

HP 300dpi Inkjet printer. Laser quality at dot matrix price.
3 year warranty. With cable & paper

£359

Canon BJ-10ex

360dpi Inkjet printer
with cable & paper

£235

Star SJ-48

360dpi Inkjet printer
with cable & paper

£229

Star

LC10 Mono 9pin	135
LC200 Colour 9pin	189
LC2410 Mono 24pin	182
LC24200 Mono 24pin	219
LC24200 Colour 24pin ..	275

Prices include VAT cable & paper

Naksha Mouse

for Atari ST & Amiga with house & mat

£21.50

Naksha Scanner

200 to 400dpi. 105mm width with *express-IT* software

£109

Squik Mouse

for Atari ST & Amiga

£13.90

True Mouse

for Atari ST & Amiga

£15.90

1M Simm

£29.90

Suitable for GVP Hard Disks etc.
£29.90 per 1M

Midi Interface

4 channel Midi Interface for Amiga

£29

Dr. T's Midi Music Software (not suitable for A500+) **£9.95**

GVP Series 2 52M

for A500 **£369**

Supra 500XP 52M

for A500 **£329**

Protar Visto 14CM

14" Colour Monitor with cable

£209

Philips CM8833 MK1

Refurbished Colour Monitor
1 full years warranty with cable

£169

Philips CM8833 MK2

Colour monitor with cable

£219

Commodore 1M drive

A1011 CBM 1M External Floppy **£59**

Cumana CAX354

External 1M Drive

£54.95

Roctec 1M Drive

for A500 **£59.90**

Accessories

Joystick/Mouse twin extension	4.70
3M Joystick/Mouse lead	3.75
A500 Printer cable	7.95
Modulator/Disk Extension	10.95
23way Plug or socket	2.95
A500 Dust Cover	4.70
A501 1/2M Memory +Clock	29.00
Mouse Mat (thick soft type) ..	4.95
Mouse House	2.95
1M internal 3.5" drive	57.50
A500 replacement PSU	39.00
1/2Meg Ram NO Clock	23.90
Delta 3AS Analogue Joystick	15.90

Vidi-Amiga

VIDI-ST Real time mono frame grabber
Plus: Colour Software & filters + Art & design package

£109

The Complete Colour Solution

As above but includes Electronic colour splitter

£159

1/2 Meg Ram + Clock

£24.95

A2286 Bridgeboard

CBM 286 Bridgeboard for A1500

£319

GVP Series 2 52M

for A1500 **£279**

Amiga 1500

with full software pack

£499

CBM 1084SD

Colour monitor with cable

£229

A500 PLUS

Cartoon Classics full software pack

£325

SONY
DISKETTES
SONY branded
(lifetime warranty)
(100% certified error free)

10x 3.5" DS/DD 135tpi	7.50
50x 3.5" DS/DD 135tpi	32.30
100x3.5" DS/DD 135tpi	59.93
250x3.5" DS/DD 135tpi	141.00
1kx 3.5" DS/DD 135tpi	540.50

DISKETTES
SONY bulk
(lifetime warranty)
(100% certified error free)

10x 3.5" DS/DD 135tpi	5.95
50x 3.5" DS/DD 135tpi	21.86
100x3.5" DS/DD 135tpi	39.60
250x3.5" DS/DD 135tpi	94.88
1kx 3.5" DS/DD 135tpi	353.68
40 x 3.5" Disk box with lock	5.49
100 x 3.5" Disk box with lock ..	7.50

Carriage on 50+ disks £3.53

Phone for our 60 page catalogue
EDUCATIONAL AND GOVERNMENT ORDERS WELCOME
All products have a 30 day money back & 12 month warranty.
Prices are subject to variation without prior notification.
Established 7 years. 3 minutes from M27 Junction 11.
Free parking. Open 9 to 5.30 Monday to Friday & 9 to 5 Saturday
Postage 94p or £3.53 Securicor £6.46 (£5.50 + VAT)

WeServe

Larger items delivered by Securicor

40-42 West Street
Portchester Hants
PO16 9UW
Tel: 0705 325354

High quality products. Full technical support.

Visit our Showrooms. See before you buy.

An arcade in your room

Arcade games like *Pacman*, *Space Invaders* and *Asteroids* started the phenomena we call computer games, introducing the world to new experiences. But while many of these machines are now forgotten, with PD software you can relive the magic of those early days. Just how close are these games, though? We sent Tim Howell back in time to find out...

Those were the days. Ah, the memories – and we're not talking bits and bytes here – of arcades and arcade machines of years gone by. When *Space Invaders* were taking over the planet for the first time; when *Scramble* meant more than a way of cooking eggs; and when the ever-hungry Pac family made sure that there was sexual equality in computer games.

But while many of these arcade machines have either died or are now collecting dust in the corner of an arcade the entertainment value of these games doesn't have to be forgotten thanks to PD software. Most of the classic games of the late 70s and early 80s have been translated to the more recent Amiga, PC and ST machines, so you can journey back to these simple yet ground-breaking times, reliving the experience in the comfort of your own home. And there isn't a coin slot in sight!

Whether it's *Asteroids*, *Pacman* or the classic *Space Invaders*, you have fond memories of, you can be sure that there's a version of it in the public domain. But just how authentic are these games?

Did you know...?

Contrary to popular belief, the first video game wasn't *Pong*, but *Computer Space*. This game was introduced in November 1971 and only 2,000 machines were made.

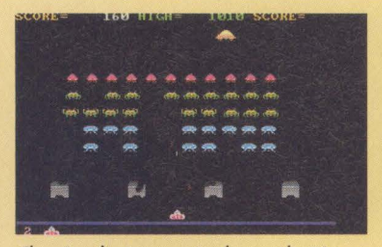
Can you expect to have just as much fun with them in the 90s as you had in the 70s and 80s? Let's find out by looking at some of the best conversions available from your local PD library.

Space Invaders

Released 1978

If any game epitomises the idea of 'the computer game', then it must be *Space Invaders*. When this revolutionary arcade creation came out in 1978 it caused a worldwide phenomena and was the subject of dozens of newspaper articles, all pronouncing the game as a threat to the sanity of the planet as we knew it.

In the end we survived, and now we can play the game in our own homes thanks to some very accurate PD conversions that are available. All three of the games mentioned here have the familiar five rows of aliens and the four bases which are there to protect you from the invaders' missiles.

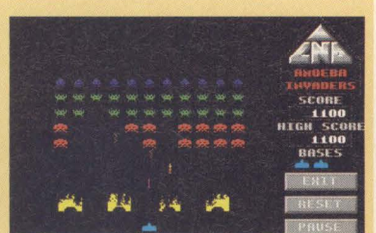


Clone Invaders is appropriately named – it's very close to the original *Space Invaders*

On the Amiga there is *Amoeba Invaders* which retains the basics of the original, right down to the infamous 'de-do-de-do' sound effect which occur whenever the invaders move along the screen.

You have a choice of two graphic styles in *Invaders* on the ST – this is the classic style

When it comes to options, *Clone Invaders* on the PC is well-equipped. It works in all of the PC's major graphics modes, from CGA upwards, and can be controlled by either the keyboard, mouse or a joystick. As for the game itself, it plays very well, has the familiar graphics and is, overall, an authentic clone.



And things look very similar on the Amiga version of the game as well: *Amoeba Invaders*

The ST isn't left out either. *Invaders*, a Budgie game, is another accurate conversion, which also has a number of options. There are three skill levels, and two choices of graphics modes: classic, which is a copy of the original game, and modern, which changes the graphics so that they look more up-to-date. And, in common with the other two versions, the ST game is also a faithful clone.

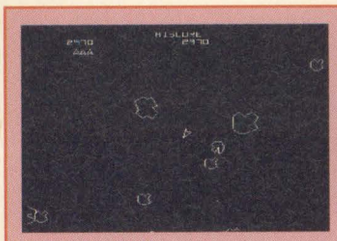
Did you know...?

In 1980 Japan's population was about 117 million people while 350,000 *Space Invader* machines were sold there – approximately one machine for every 334 people in the country

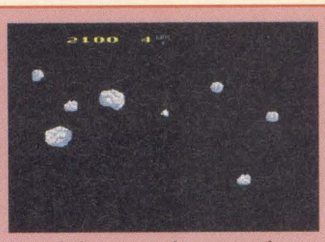
cont. on p10

Arcade game round-up

Space Invaders, _Asteroids_ and _Pacman_ are the only games that have quality PD versions on all three machines. There are a variety of other games available for the machines – unfortunately not on all three – that are authentic conversions of some of the other popular arcade games of the early 80s.



Cabaret Asteroids is perhaps the most authentic conversion of *Asteroids* ever



Instead of vector graphics, *Amigoids* uses filled-in graphics for its asteroids

Even though it looks simple on-screen, the PC's *EGA-Roids* still plays well

Asteroids

Released October 1979

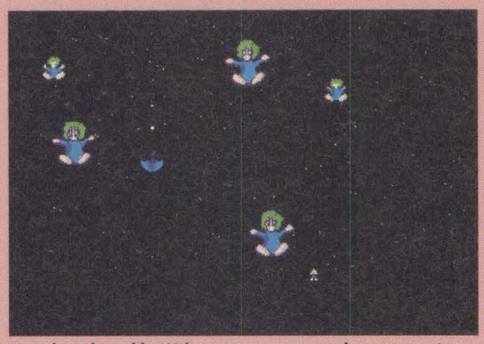
One of the most original games ever, *Asteroids* is also one of the simplest to play. You have to control a spaceship in a very dangerous part of the universe, a busy asteroid belt. Using simple left, right and thrust controls (plus a hyperspace button to get you out of sticky situations), you have to blast the asteroids to bits.

While the game was very popular in the arcades, it also seems popular with computer programmers, particularly those who use the Amiga. This is probably because the game is reasonably easy to program, as it uses few controls and has simple graphics, and the end result is so enjoyable.

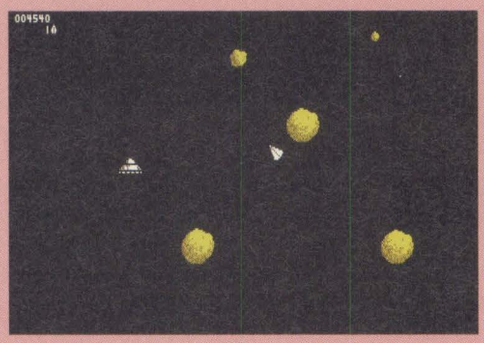
The three games on the Amiga tackle the game of *Asteroids* in different ways. The most authentic version – and boy, is it authentic – is *Cabaret Asteroids* which copies the original game right down to the vector graphics and even the Atari sign at the bottom of the screen. *Amigoids* is also quite a close conversion, using solid asteroids instead of vector ones, but retaining the 'feel' of the original game. *Lemmingoids* takes a humorous approach to the game and features those loveable creatures from the popular Psygnosis game. You control an umbrella and have to shoot the Lemmings who scream in shock when they're hit.

EGA-Roids on the PC retains most of the features of the game. It doesn't have vector graphics or an Atari sign, but it has the game's playability. It also uses keyboard controls which stick to the principles laid down by the coin-op.

The same goes for the rather old *Megaroids* on the ST which was written when the computer was only a couple of years old. It also plays well, even if it may be a bit slow, but this doesn't detract from the overall game; testament to the quality of the original game in the first place, perhaps. One thing's for sure: you can definitely play the *Asteroids* in the comfort of you own home.



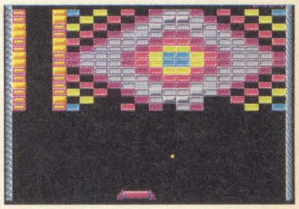
Yes, those loveable (?) lemmings get everywhere – even in the middle of space in *Lemmingoids* on the Amiga



An oldie but a goodie, *Megaroids* was written in 1986 but there's still nothing better for the ST. Mind you, it's very good

Breakout

Released 1976



Megaball has pretty graphics but the game remains the same...

Any round-up of arcade games would not be complete without mentioning *Breakout*. The coin-op version of the game came out in 1976 and home computer versions have been coming out ever since, the very simplistic gameplay being addictive to everyone from the dustman to your great granny.

You may have to wear sunglasses if you want to play *Illusion* for a while

In the game you control a bat which you use to hit a ball to knock bricks out of a wall. *Arkanoid*, a more recent arcade game, is based on *Breakout* but adds 'power-ups' to give the bat special abilities. The

Did you know...?

Pong came along a year after *Computer Space*, in November 1972. Atari, the company that created it, sold 10,000 under its own name, but another 90,000 copies and revisions of the game were produced by other manufacturers

Pacman

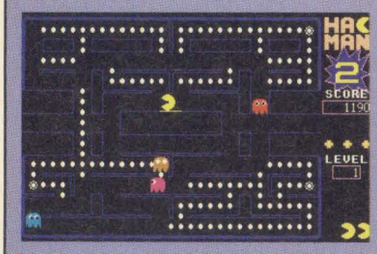
Released 1981

Pacman's main claim to fame is that it made computer games popular for women for the first time. The cute round yellow character which inspired a hundred clones (and T-shirts) had to run around a maze eating all the dots while avoiding the four ghosts who are patrolled it. Eating a power pill made the ghosts vulnerable for a short period of time, enabling you to eat them as well. And the more you eat in a row, the more point you scored. Again, this is another game that is popular on all three machines.

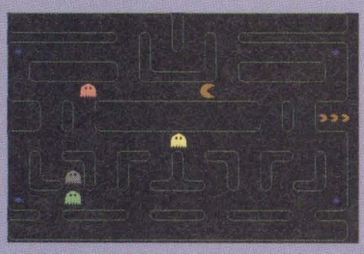
The Amiga has *Pacman 87* which is graphically different from the arcade game and is also different in how it plays – you can exit a maze at any time without having to clear it of all its dots, returning to that maze when you've exited from another. *Yum Yum* is more authentic, but it is also much slower to play – not necessarily a problem but a bit of a pain if it's an accurate conversion you're after.

PC Man looks like the arcade game on the surface, but the designs of the mazes are quite different. Apart from that the game plays quite well, at least on the lower levels – the higher levels are too fast to be playable.

ST owners can play probably the closest version of the game in the form of *Hackman II*, a *Pacman* clone that has similar mazes and graphics to the original. The game itself is a bit slow, perhaps, compared to the arcade game and the other PD versions, but this doesn't affect its playability too much.



One of the most authentic *Pacman* clones, *Hackman II* also looks like the original



While it features mazes of a different design, *PCMan* still plays the same as the arcade game

Unlike the original *Pacman*, in *Pacman 87* you can exit the maze before you eat all the dots

Yum Yum is the slowest of the *Pacman* games we looked at here, but it still plays well

PD clones are hybrids of the two. The original *Breakout*'s graphics were very basic, just coloured blocks forming a basic wall on the screen.

Rather than mention the close clones that are around – and there are a few – we'll have a look at some games that keep the main elements of the original, but have much better-looking graphics; not only does the game look better, but there is more imagination used in placing the blocks. Most of the games look like *Arkanoid*, but don't necessarily have all of the extra features.

Megablitz is one of a number of clones available for the Amiga, resembling *Arkanoid* graphically and in gameplay. There is a wide range of power-ups, in fact more than in the original.

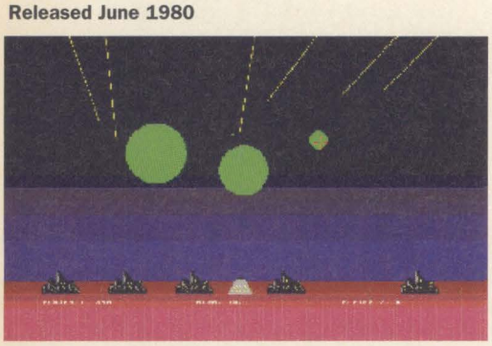
Best of the bunch, though, is *Illusion* on the ST. This looks like *Arkanoid* graphically, but it doesn't have power-ups, therefore retaining the simplicity of the original *Breakout*. *Illusion* not only looks good, it also has the all-important factor of playability.

Did you know...?

In its first 12 months of existence *Asteroids* consumed coins which totalled some $700-800 million. So if it was a company in its own right it would have been number 383 on the Fortune 500 financial 'charts'

Missile Command

Released June 1980



Intercept those incoming missiles before they hit your cities down below. Thousands of people depend on you in *Missile Command*

Missile Command is another game from those arcade game boffins at Atari, before they got into home computers, and is another of those games that is unique but incredibly playable.

The game was also notable technically, being the first game to use a trackball. In it you have to save your cities from being destroyed by incoming nuclear bombs. To do this you have to launch your own missiles to intercept the bombs; the explosions from your missiles blocking their path.

The Amiga game, also called *Missile Command*, is the only version of the game worth mentioning on any of our three machines. Instead of a trackball the mouse is used to control the crosshair you use to launch missiles, and this works well. The game itself is also close to the original and is, and always will be, an absolute classic.

Did you know...?

Atari manufactured more than 70,000 *Asteroids* machines

Not quite like the original in terms of graphics, *Rollerpede* is still an action-packed version of the classic *Centipede*

Centipede

Released 1981

Along with *Missile Command*, this was one early game that used a trackball. This time though, instead of a crosshair you controlled a small ship that had to shoot the marauding centipedes which progressively moved down the screen a line at a time. Other creatures also inhabited the game, such as spiders which bounce along the bottom of the screen, and others which creep up on you from below.

Again, it is the Amiga which comes up trumps: *Rollerpede*, while not an exact replica, plays the best out of the different versions available on the machines. It's graphics are larger than the original game, but they are also more colourful. And as far as gameplay goes it darn near matches the coin-op.

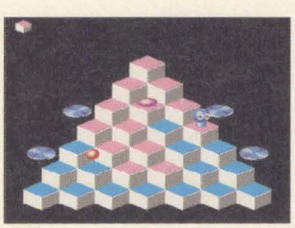
Did you know...?

When *Space Invaders* was introduced in 1978 it created a shortage of the 100 yen coin in Japan

Q-Bert

Released 1983

Q-Bert is another one of those one-of-a-kind games. In it you control a 'cute'-looking character that has to jump around a pyramid of cubes, changing the faces of the cubes to a different colour. Both the Amiga and ST have decent conversions of the classic arcade game.



***Q-Bic*: jump on each cube to change its colour but watch out for those balls...**

Fuzzball*'s slower than *Q-Bic* but they're both like the original *Q-Bert

Q-Bic on the Amiga has just come out and is programmed by Ronald Pieket Weeserik who has also produced commercial games such as *Silkworm*, *SWIV* and *Rodland*. It is very professionally put together, with loads of options and colourful and smooth-moving graphics.

Fuzzball on the ST isn't quite as smooth or as fast – in fact it's quite slow – but it is also an accurate conversion of the game, retaining all the original's major features.

Everything counts

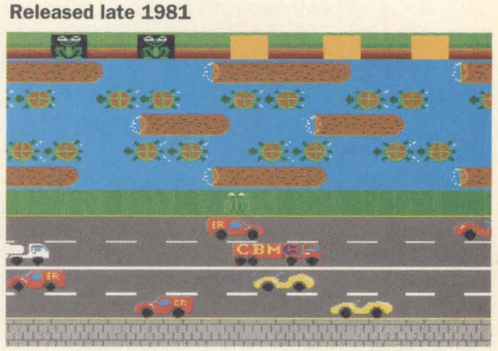
It's the bain of every computer game reviewer's life: a product that looks and sounds great put plays like a brick. This is the case of many of the games that have come, and are still coming, out in the arcades and computer shops today.

In the early days, though, the situation was exactly the opposite. The arcade games of those days, in terms of today's standards at least, had very simple presentation because of the technology that was available. But when it came to quality of gameplay, these games were streets ahead of many of the cabinets that are currently cluttering the arcades.

The combination of these ideas with the home computer technology means that we can enjoy the games of the early days at home. Often they look and sound much better than the originals did, and they keep the all-important ingredient of gameplay. Because these games can't go on the shop shelves because of their age, the public domain is the ideal way of distributing them. And the cheapest...

Frogger

Released late 1981



'Phew, I crossed the road safely, now I have to jump on the logs and lily pads to get across the river', thinks the frog from *Jumper*

Frogger is one of the most non-violent computer games, unless you hate frogs that is, in which you have to get your frog across a busy highway, avoiding the cars and trucks, and then across a river by jumping on lily pads and logs.

Once again, the Amiga has the best version of the game, called *Jumper*. This wasn't an exact clone of the game; its graphics were much larger and it has good music. It's basically an updated version that tries to improve on the original game.

Did you know...?

The concept behind *Asteroids* was was invented in 1978 by Lyle Rains, an Atari engineer. He had an idea for a game in which the player controlled a ship through a field of moving rocks, while Ed Logg, another Atari engineer, programmed the game

Did you know...?

There were 100,000 *Pacman* machines made in US, making it one of the most popular games of all time, if not *the* most popular. Two reasons have been given for its success - it can be controlled by one hand on one lever; the game has appealed to more women than any other game

cont. on p12

cont. from p11

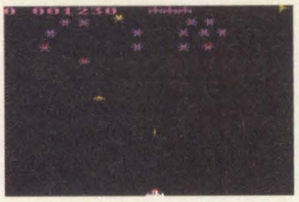
Galaxian

Released October 1979

Left, right, fire – that's all you have to do to save the world in *Girl Actions*

After *Space Invaders*, *Galaxian* was the next major shoot-'em-up to grace the arcades in any great numbers.

When it came out in 1979 it was one of the first games to give the aliens an inkling of intelligence by making them attack in formations, flying down the screen at you. It is another one of those games that has many clones, even in the arcades, but not all of these games are close copies of the original. There are a couple of PD ones worth mentioning though.



***Quest for Galaxia* is the closest *Galaxian* clone, but plays a lot slower**

The closest game to the original is *Quest for Galaxia*, a licenceware game programmed by prolific Budgie author Gary Wheaton. It plays slower than the original, but it resembles the game graphically.

Girl Actions is the closest the Amiga comes to having a *Galaxian* game, and it comes pretty close. The graphics are just as, if not more, simplistic than the arcade machine, but they move smoothly, retaining the playability of the original.

Did you know...?

Centipede, unusually for a computer game, was written by a woman, Dona Bailey, who was the only female programmer at Atari when the game was produced in 1981

Scramble

Released 1981

***Squamble* is version of *Scramble*, possibly written by Jonathan Ross...**

Scramble was one of the first games to feature horizontal scrolling, combining it with shoot-'em-up action. If compared to *Defender*, *Scramble* pales in comparison, but as a game in its own right it isn't too bad.

Sspace efficient, *Miniblast* takes up only a small part of the Amiga screen

The idea of the game is to manoeuvre your ship through tortuous caverns and landscapes in space, avoiding the terrain below (and, sometimes, above) you, shooting objects that could destroy you, such as rockets, or that you need, such as fuel dumps.

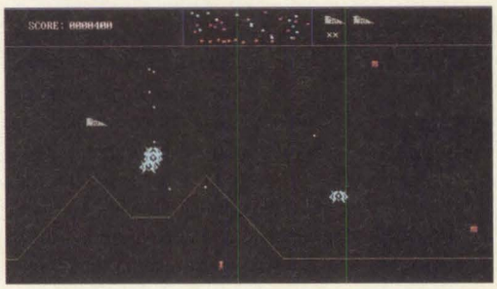
Despite the simple attraction of the original game it's surprising that more conversions of it haven't made their way on to the PD scene. In fact, the only ones we've seen are both on the Amiga: *Squamble* and *Miniblast*.

Squamble is the closest of the two games to the original coin-op, retaining most of its features. The game's graphics aren't very impressive but they do their job, and anyway, it's gameplay that matters most and *Squamble* has more than enough of that to make it interesting.

Miniblast, on the other hand, takes a different approach: the game is fundamentally similar but all the action takes place in a small window on the Amiga's Workbench screen. Even in this limited space (slight pun intended) the game is very playable and representative of the original coin-op, albeit on a much smaller scale.

Defender

Released December 1980



While *PCFender* lacks the fast-paced and frenetic action of the arcade machine it's based on, you still need six fingers to play it

One of the all-time classics, *Defender* is the definitive shoot-'em-up; a game that provides speed, frantic action and a continuous addictive challenge. Williams' first entry into the video game world couldn't have been better – this game was responsible for not only consuming coins at a rapid rate, it also caused finger strains the like of which only sufferers of RSI will know about ...

To play the coin-op *Defender* you had to be dextrous to the extreme. Not only did you have a fire button, but there were also buttons for reverse, thrust, hyperspace and smart bomb. Plus there was a joystick as well, although this only moved up and down. All these controls meant that those who could play *Defender* had to be able to play other games as well – skill was a crucial ingredient to playing the game properly, as was stamina.

Unfortunately, there aren't any games available in the public domain that can claim to replicate *Defender* authentically. The games that are available are either too slow or aren't close enough in gameplay. Basically, the only reason the game's mentioned at all in this round-up, which is sticking to the best of the games available, is on the strength of the original coin-op.

PCFender on the PC is probably the closest to *Defender* of the PD games available. It keeps most of the keyboard controls and even looks similar, the problem is that it moves at a snail's pace. It's still possible to play the game, but it's doubtful you would want to for very long.

Did you know...?

Defender's code took up a whole 26K of RAM (!), which was more than 10K (!!) larger than other popular games of the time

Did you know...?

Defender was developed by Williams, a company well-known for its pinball machines. It was the company's first entry into the video game market. The first *Defender* machine came out in Europe in December 1980, and in the US in February 1981. Williams eventually manufactured 55,000 of the machines, mainly for the US market

Where to get them all

AMIGA

- AMIGOIDS– PD • 512K • Software Expressions, Hebron House, Soin, Bedminster, Bristol ☎ 0272 637634
- AMOEBA INVADERS – PD • 512K • Disk 1057 • Vally PD, PO Box 15, Peterlee, Co Durham, SR8 1NZ ☎ 091 5871195
- CABARET ASTEROIDS – PD • 512K • Disk 1735 • PD Soft, 1 Bryant Avenue, Southend-on-Sea, Essex SS1 2YD ☎ 0702 466933
- GIRL ACTIONS – PD • 512K • Disk 1057 • Vally PD, PO Box 15, Peterlee, Co Durham, SR8 1NZ ☎ 091 5871195
- JUMPER – PD • 512K • Disk 1226 • Vally PD, PO Box 15, Peterlee, Co Durham, SR8 1NZ ☎ 091 5871195
- LEMMINGOIDS – PD • 512K • Not Plus compatible • GSPD, 46 Weller Drive, Camberley, Surrey GU15 2YA
- MEGABALL – Shareware • 512K • Disk 1539 • Crazy Joe's, 145 Effingham Street, Rotherham S65 1BL ☎ 0709 829286
- MINIBLAST – PD • 512K • Diskovery, 108 The Avenue, Clayton, Bradford BD14 6SL ☎ 0274 880066
- MISSILE COMMAND – PD • 512K • Disk 1057 • Vally PD, PO Box 15, Peterlee, Co Durham, SR8 1NZ ☎ 091 5871195
- PACMAN 87 – PD • 512K • Disk AG07 • Byteback, 6 Mumby Close, Newbank, Notts NG24 1JE ☎ 0636 79097
- Q-BIC – Charityware • 512K • AmigaNuts, 169 Dale Valley Road, Hollybrook, Southampton SO1 6QX
- ROLLERPEDE – PD • 512K • Disk 1511 • 17-Bit Software, 1st Floor Offices, 2/8 Market Street, Wakefield WF1 1DH ☎ 0924 366982
- SQUAMBLE – PD • 512K • Disk 1749 • PD Soft, 1 Bryant Avenue, Southend-on-Sea, Essex SS1 2YD ☎ 0702 466933
- YUM YUM – PD • 512K • Disk 1748 • Vally PD, PO Box 15, Peterlee, Co Durham, SR8 1NZ ☎ 091 5871195

PC

- CLONE INVADERS – Shareware • 512K • CGA/EGA/VGA • $20 • Benetech Systems, 21 Loughborough, Leicester LE4 5LJ ☎ 0533 611231
- EGA-ROIDS – Shareware • 512K • EGA/VGA • $5 • Disk 935A • The Public Domain and Shareware Library, Winscombe House, Beacon Road, Crowborough, Sussex TN6 1UL ☎ 0892 663298
- PCFENDER – PD • 512K • EGA/VGA • Disk 1854 • The Public Domain and Shareware Library, Winscombe House, Beacon Road, Crowborough, Sussex TN6 1UL ☎ 0892 663298
- PC MAN – PD • 512K • EGA/VGA • Fantasia Shareware, PO Box 1231, Clutton, Bristol ☎ 0761 453716

ST

- FUZZBALL – Licenceware • 512K • Disk BU50 • N LAPD,80 Lee Lane, Langley, Heanor, Derbys DE7 7HN ☎ 0773 761944
- ILLUSION – PD • 512K • Disk GAM116 • ST Club, 2 Broadway, Nottingham NG1 1PS ☎ 0602 410241
- INVADERS – Licenceware • 512K • Disk BU50 • £2.95 • LAPD, 80 Lee Lane, Langley, Heanor, Derbyshire DE7 7HN. ☎ 0773 761944
- MEGAROIDS – PD • 512K • Games Disk 1 • Arrow PD, 6 Kents Orchard, Perry Street, South Chard, Somerset TA20 2QB.
- PACMAN ST – Licenceware • 512K • Disk BU70 • £2.95 • Goodman's PDL, 16 Conrad Close, Meir Hay Estate, Longton, Stoke-on-Trent ST3 1SW ☎ 0782 335650
- QUEST FOR GALAXIA – Licenceware • 512K • Disk BU30 • £2.95 • LAPD, 80 Lee Lane, Langley, Heanor, Derbyshire DE7 7HN ☎ 0773 761944

OMEGA PROJECTS (EUROPE) LTD

14 DERWENT CLOSE
CULCHETH
WARRINGTON
CHESHIRE, WA3 5DY

0925-763946
FOR ORDERS AND TECHNICAL QUERIES

ALL CHEQUES, P.O., ETC SHOULD BE MADE PAYABLE TO OMEGA PROJECTS LTD. WE ALSO TAKE ACCESS, VISA, MASTERCARD & EUROCARD

ALL PRICES INCLUDE VAT

SOUND ENHANCER

IF NOT SATISFIED WITH THIS PRODUCT SIMPLY RETURN FOR A NO QUIBBLE REFUND. THIS IS HOW SURE WE ARE THAT YOU WILL BE MORE THAN IMPRESSED. YOU'VE GOT TO HEAR IT TO BELIEVE IT.

34.95

100% COMPATIBLE WITH ALL SOFTWARE

IF YOU THOUGHT THAT THE AMIGA SOUND WAS GOOD THEN YOU ARE IN FOR A REAL SHOCK, AS YOU CAN ENHANCE THE SOUND TO NEW HEIGHTS WITH THE BRAND NEW RELEASE FROM OMEGA PROJECTS: LOOK OUT FOR THE REVIEWS

AMI-BACK

The WORLDS fastest, most reliable hard disk back-up utility available for the AMIGA. Backs up to 4 floppy drives (not 2 like the competitors) or to TAPE STREAMER without the need for additional software, has a built-in SCHEDULER. Selective back-up, or Disk Image. Guaranteed, better than any other on the market.

49.95 AMIGA DOS 2.0 COMPATIBLE

150/250Meg SCSI TAPE STREAMER

The ULTIMATE back-up device + FREE copy of AMI-BACK

INTERNAL **499.95**
EXTERNAL **599.95**
AMIGA DOS 2.0 COMPATIBLE

ST-506 HARD DISK INTERFACE FOR A500. FITS IN TRAPDOOR COMPLETE 612K RAM + CLOCK
49.95

SYQUEST REMOVEABLE HARD DRIVES

The most cost effective drive solution ever for the Amiga.
44 Meg inc. CARTRIDGE £399.95
88 Meg inc. CARTRIDGE £499.95

GVP

52Meg 399.95
105Meg 499.95

IMPACT 500 HARD DRIVE Expandable to 8 Meg ram
ADD 50.00 PER 2 Meg IF ORDERED AT SAME TIME AS DRIVE.

AMIGA 1500 + SOFTWARE

599.95
NO SOFTWARE
549.95

SUPRA RAM 500 RX

External memory expansion for Amiga 500 & 500 Plus. Adds up to 8 meg.

1 Meg 119.95 4 Meg 199.95
2 Meg 149.95 8 Meg 349.95

SUPRA HARD DRIVE SYSTEMS

500XP 52MEG 349.95
500XP 105MEG 499.95
PLUS UP TO 8 MEG RAM

GVP SERIES 2 (A1500/2000) SCSI + UP TO 8 Meg of Ram
52Meg 299.95 ADD 50.00 PER 2 meg
105Meg 419.95 IF ORDERED AT SAME TIME

NEXUS (A1500/2000) SCSI + UP TO 8 Meg of Ram
52 Meg 379.95 ADD 50.00 PER 2 Meg
105Meg 519.95 IF ORDERED AT SAME TIME

BARE SCSI (UPGRADE) DRIVES

Quantum	52Meg	199.95
Quantum	105Meg	349.95
Quantum	210Meg	639.95
SCSI Case.	inc PSU	109.95

SUPER CARD-AMI II

THE ULTIMATE & GENUINE DISK DUPLICATOR. FULL UK SUPPORT & UK USER GROUP SET UP

A500 **34.95** A1500/2000

200 WATT PSU

COMPLETE WITH A500 POWER CABLE & OPTIONAL HARD DRIVE POWER LEAD

READY TO PLUG IN AND GO **79.95** FAN COOLED

A3000 RAM 256*4 80ns 1Meg	69.99
A3000 RAM 1024*4 80ns 4Meg	299.99
A500 Replacement Int. Drive	55.00
A1500/2000 Internal Drives	59.95
A590 CMOS RAM Chips (512K)	19.95
B2000 18 Pin Drams (2Meg)	79.95
256*1 Drams 150ns	0.99
1.3 Roms	34.95
1Meg x 8 SIMMS (2Meg) 80ns	79.95
4Meg x 8 SIMMS (8Meg) 80ns	299.95
Sound Trap 3 Sampler	29.95
Mini-Midi Interface	19.95
4 Channel Audio Mixer + Mic	34.95
Sound Trap 3 + Mini-Midi	47.95
Sound Trap 3 + Audiomaster 2	55.00
Sound Trap 3 + Audiomaster 3	84.95
Mini-Midi + Music-X	99.95
Audiomaster 2	29.95
Audiomaster 3	55.00
3.5" Ext. Drive (Cumana)	59.95
23WAY Connector no hood	1.49
23WAY Connector + hood	1.99
40 Cap. Disk Boxes	4.50
80 Cap. Disk Boxes	4.95
A500 Dust Covers	2.99
Mouse Mats (6mm neporene)	1.99

ICD ADIDE40 AT CONT.	99.95
ICD ADIDE44 AT CONT.	129.95
ICD ADSCSI 2000	99.95
ICD ADSCSI 2080	149.95
ICD NOVIA 20i (Fully internal)*	199.95
ICD NOVIA 40i (Fully internal)*	299.95
ICD NOVIA 60i	399.95
ICD FLICKER FREE VIDEO	199.95
ICD ADSPEED	159.95
ICD ADRAM 540	89.95
ICD ADRAM 560	169.95

* NO NEED TO REMOVE DFO

CSA MEGA-MIDGET RACER

The UKs biggest selling ACCELERATOR card. For the A500/2000. Offering a modular design allowing you to buy what you can afford then expand later. Up to 38Mhz CPU + 50Mhz Co-pro + 8 Meg 32bit ram + 512K Shadow (STATIC) ram.

68030 accelerator 25, 33, 38 Mhz
Co-Processor socket for 68882 up to 50 Mhz
68000 socket on board for FALLBACK compatability
Gives you more power than the A3000
Optional DRAM expansion up to 8Meg 32 bit ram
Fits INSIDE A500/1500/2000 easily and quickly
Creates a monster machine for progs like FALCON etc
Cuts Ray Tracing times 30x - 60x for SCULPT etc
Speeds up screen refresh and overall performance
Lowest price 68030 THAT WORKS!!!!

As the ONLY OFFICIAL DISTRIBUTORS for CSA we offer a 50% buy back policy. This means that if you upgrade you won't be stuck with anything.

25mhz EC68030	349.95
33Mhz EC68030	449.95
25Mhz MC68030	449.95
33Mhz MC68030	549.95
25MhzEC + 68882	499.95
33MhzEC + 68882	599.95
STATIC RAM (512K)	99.95
2Meg 32Bit ram	199.95
4Meg 32Bit ram	399.95
8Meg 32Bit ram	699.95
25/25 + SRAM + 2Meg	749.95
33/33 + SRAM + 2Meg	879.95

Also coming soon from CSA is a BRAND NEW idea to enable people that own the Commodore A2630 Accelerator to increase its speed to a full 50MHZ while retaining full original compatability. So don't even think about swapping your original card for a faster one until you have seen the performance of

"ROCKET LAUNCHER"
Phone for more details

GVP SERIES II 68030 COMBO CARD

This affordable ACCELERATOR CARD for the A1500/2000 gives your Amiga a new outlook on processing. Complete with CO-PRO, 32 BIT RAM, and SCSI HARD DISK controller. Allowing transfers in excess of 1.2meg/sec

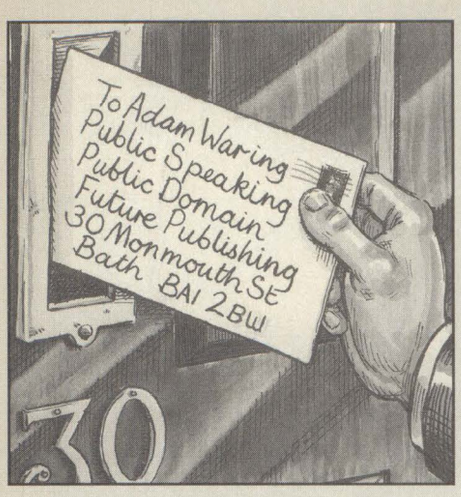
25Mhz + 1Meg 32 bit ram	599.95
40Mhz + 4meg 32 bit ram	999.95
50Mhz + 4meg 32 bit ram	1499.95

GVP IV24

24 bit professional video adaptor. Features 16 million colours on screen at once. Built in Genlock, F/Fixer, Frame buffer, Frame grabber, and Digital keyer. Comes with Caligari 3D. Scala IV24, & Macro Paint

1799.00

Panasonic MULTI-SYNC Monitor
+
ICD Flicker Free Video
499.95



Public Speaking

How do you fancy earning yourself a quick tenner? What do you have to do? Simple! Just deliver 5,000 double glazing leaflets to all the households in town.

On the other hand, you could write the best letter of the month, send it to *Public Domain*, and wait for the postie to return with the loot. It can be about anything you like, just as long as there's a PD or shareware connection, and the more conroversial the better! Send your letters to me, Adam Waring, at:

Public Speaking, *Public Domain*, Future Publishing, 30 Monmouth Street, Bath BA1 2BW

Getting around

I am currently in the process of assembling a group of Amiga users with a view to writing demos. The idea will be to release them into the PD circuit. The problem is that I don't know how to go about it properly.

How do we get programs into the PD circuit? Is it a case of sending our creations to the various libraries, or can we just send them to one library and let it circulate from there?

I am looking for coding magazines (or well-documented source code) on PD. I have been coding assembler on IBM mainframes for the last four years, so the actual 68000 code is not a major problem. I'm using various books about the Amiga to help me understand the custom chips, but they don't really have enough source code for my liking (there really is no substitute for looking through other people's code).

Steve Criddle
Folkestone, Kent

The more libraries you submit your disks to, the more coverage they're likely to get. Many libraries are prepared to swap disks between one another. Obviously as you're not actually receiving money for the programs, you don't want to spend too much on getting them circulated. On the other hand, you don't want only a handful of people to see the end result.

Another means of distribution is through bulletin boards. Many libraries regularly download programs from these for distribution.

AmigaNuts regularly releases a disk magazine called the *Amiga Coders' Club*. It's full of tips for those wanting to get the best from the machine. AmigaNuts, 169 Dale Valley Road, Hollybrook, Southampton SO1 6QX. **Adam**

That'll teach me

I have a suggestion for a feature you could run in your magazine. A tutorial section on the use of a specific public domain program would be most useful for a large number of your readers.

The average PD user is not a computer genius but it seems that they are assumed to be so by the writers of programs. An example of this is the *Disk Master* utility which you have reviewed. I purchased this program but I have found that I cannot get anywhere with it. Not being a printer owner it's not possible to read the documentation while the program is running and jumping between the two is not at all practical. I am sure it is not such a complicated job but the average PD user just wants to load and go. I believe that if you devoted several pages each month explaining in detail how to use a specific piece of software, this would become a very popular feature. It's worth considering.

I have written to several magazines on this subject but I believe that yours is the obvious one to take the idea up.

Brian Goodwin
Whitehaven, Cumbria

Because of the way that public domain software is distributed, it is not practical to include printed documentation and so document files explaining how to use the program are often necessary. I understand your desire to want to 'load and go' – I'm impatient myself – but sometimes you simply have to sit down and read. You can't always expect a program to be intuitive especially when it performs a complex task.

We do have try and have tutorials in many of the features we're already running – the step-by-step walk-throughs concentrate on a single program and attempt to take you through it. And now that we've introduced more detailed reviews into the sections we aim to tell you how to use the programs as well as how good they are. **Adam**

Something Fishy

1. Why oh why do disks for the Amiga asume that all users are utter morons? (No snide remarks, please.) I am refering to the way that PC disks routinely come in an archived format, but Amiga disks come ready to use. Alright, big convenience factor, but I'd prefer to get maybe three megs of archived material than a meg of unarchived. Only Fish disks come archived, more on them later...
2. A little question about the *RSI Demo Maker*. Why is there an English Language book on using this program which doesn't seem to be commercially available outside Germany?

Could Data Becker have decided that it would never sell as many copies as are in circulation and that it might as well cash in, thus effectively condoning and accepting piracy?

3. Now, do you know why Fred Fish disks are so notoriously hard for the beginner to use? They are non-autobooting and require a Workbench disk to get them going. Why is this? It is perhaps because in the early days of the Amiga, Commodore clung tightly to its copyright on AmigaDOS?

Did Commodore relax copyright on these files, or are most AmigaDOS disks in circulation actually illegal?

Liam Mac Mullan
Bunclody,
Co Wexford, Ireland

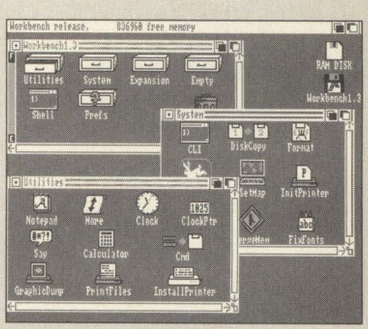
1. Different users have different levels of ability, so I wouldn't necessarily call a program that is easy to use a bad thing.

As for the the reasons why Amiga disks tend to be easier to install than their PC counterparts, I think it can be traced to the machines' histories. The Amiga, with its graphical user interface, is far more user-friendly when compared to the PC and so users have come to expect the software to be reasonably accessable. PC users, on the other hand, are used to the less-friendly Command Line Interface, and so generally accept a more difficult ride before they manage to get things going.

2. The English version of the *RSI Demomaker* is, I believe, available in the United States and in Australia. Data Becker says that it does plan to release the program in this country, and is currently attempting to sort out proper distribution channels for the program. I doubt very much whether the company would agree with you about them giving in to piracy!

3. Commodore does hold the copyright to Workbench in the same way that Atari hold the copyright to TOS. But as it's a safe bet that anyone using Workbench has an Amiga, I don't think they're too bothered about anybody distributing it in order to make disks easier to load. They certainly haven't taken any action about putting a stop to it.

We'll be taking a look at the whole issue of copyright and public domain next month. Make sure you don't miss it! **Adam**



The copyright on Workbench is owned by Commodore, yet it appears on many PD disks

On the cheap

I would like to make some comments to F M Havicon's letter in issue five of your magazine. He made several points.

1. First I'd like to point out that of all the PD libraries I've known over the past five years to go bust have all charged under £1.50, all ripped off customers by cashing cheques and not fulfilling orders.

On the whole, if you have a problem with the cheap guys the after sales service is non-existent. Ask a technical question and they are hardly ever able to sort it out, whereas we will try our utmost to resolve any problem with disks we supply. The cheaper outlets rarely account for such exceptional costs when setting the price.

On one occasion I was told by a new customer who now deals with us that disks received from one of these cheaper outlets contained none of the disks he ordered. Nothing extraordinary, we thought, as no doubt we all make the occasional mistake. But when he phoned to get the lowdown on what to do about returning the disks the reply shocked him. They simply refused to exchange the disks!

2. The situation regarding licensed disks is terribly confusing and your reviews should make it clearer where such disks are available from. Single library exclusive or restrictive deals are totally against the spirit of PD.

My recommendation is to boycott these heavily restricted disks on principle; the library in question is purely interested in commercial profit.

3. Let us not discourage any programmer from receiving a little appreciation in return for his hard work. Licenceware was conceived because of poor response from the public who were obliged to pay shareware fees but never did. If everyone was more honest about paying for programs they genuinely use then licensed software would die overnight. As I can never see shareware effectively working, licenceware will remain.

Sandra Bright
Pollysoft Licenceware
Southend, Essex

That's a fair few interesting points, Sandra...

1. One of *Public Domain*'s chief aims is to give advice on the best programs around and point buyers in the right direction. By its own definition public domain is 'free' software, yet to obtain a program from a library the buyer has to part with their cash. OK, so someone who runs a library, who has taken the time and trouble to amass a large collection of disks, catalogue them and provide a service to make them available to the general public ain't gonna do it for free, and no doubt deserves a little reward for their efforts. But a condition attached to a large number of PD programs is that they cannot be sold for profit. Where is the line drawn between covering your expenses and raking in pots of cash? And do you really get a better service if you pay more?
2. Surely all licenceware is restricted in terms of who can distribute it? After all, libraries can only do so after they've met your criteria. We were at one stage seriously considering whether we should draw the line at not covering licenceware at all, but decided that there are so many good products out there that it would be unfair to our readers not to cover them. Having said that, I am wary of libraries trying to push product that's not PD through their labels at higher prices. We have, in fact, imposed a price limit for licenceware product of £5. Any disks that sell for more than that we won't touch.
3. It's difficult to say whether shareware doesn't work too well in this country because of people's natural tendency for dishonesty or because the products aren't actually of high enough quality to encourage people to register. You can't put any old rubbish out and expect people to want to pay for it.

As far as I can see, incentives seem to be crucial for shareware to work. Perceived 'added value', be it a properly printed manual or a sequel to a game, seems to work well, provided, of course, that the original product's good enough in the first place. **Adam**

Into the aquarium

I would like to know the address of the Fred Fish public domain library in the USA. I recently sent my latest program, *Fitness*, to him, but the address was incorrect and the disk returned.

I'd appreciate it if you could tell me the correct address to send my disk to!

Sioe-Lin Kwik
London

Programs submitted to the Fred Fish PD library should be sent to Fred Fish, 1835 East Belmont Drive, Temper Arizona 85284, USA.

Good luck with the program! **Adam**

Disk dilemma

I'd like to rely to Peter Kerr's letter in your April edition of *Public Domain* with a few suggestions about the disk. Peter favours having three cover disks with every issue, one in each format. Your response was that the cost would be too great to make it a practical proposition. My suggestions are:

1. Produce cover disks in Amiga, PC or ST format – one on each issue. It would be up to the buyer to pick the correct copy off the newsagent's shelf (some PC magazines already do this with large or small format floppies).
2. Send-away vouchers for the disk, in the format of your choice.
3. Bring back the tri-format disk, but archive the programs to squeeze on three times the amount of programs per format rather than using standard-sized files (this would equal one disk for each machine). The programs could obviously not be run directly from the disk, and would have to be dearchived on to fresh disks, but as the majority of disk-users make a back-up copy anyway, this would be no more time consuming than normal.
4. The ultimate solution lies with the consumer: go out and buy the other two computers!

Ben Ghallis
Hurst Green, Sussex

The response to our dropping of the cover disk has indeed been very mixed. However, I'm certain that we've reached the right decision.

1. Distributing the right number of copies to the right newsie's would be a nightmare. What if your local Smith's had run out of the version for your machine – would you buy it anyway or skip it for a month? Not what we want!
2. I don't think a voucher scheme would work. A lot of people just couldn't be bothered to send off for the disks. Besides, we'd have to charge the higher price in the newsagents or charge a fee for distributing the disks and one area we don't want to get into is selling PD – that's for the libraries – our job is selling magazines!
3. Though archivers can compress a program's size considerably, I'm not aware of any that can squish it down quite as much as you suggest. The most efficient can sometimes manage about half the size on a program that's particularly compressible.

The problem with archivers is that on the whole, they are not particularly easy to use. We cater for a wide base of users with differing abilities. The last thing we wanted to do was to put them off before they started. Having said that, we had started to archive the Amiga portion of the disk, with a custom program that was simple to use.
4. Yes, right. Adam

Bring it back

I own an Atari ST with one meg of memory and a PC emulator and therefore get a lot of use from your magazine which I find tremendous value for money. I am therefore disappointed to read in the letters page, May issue, that you are to discontinue production of your cover disk.

The disk for me is 50 per cent of the attraction. I very much enjoy collecting my monthly magazine, spending Sunday loading and inspecting the programs on the disk and the rest of the week reading the magazine. I agree that the saving of a pound allows me to buy PD of my choice, but quite frankly it won't be the same or half as much fun!

I'm sure I'm not the only reader with these views, far from it, and I hope I'm not being too selfish in saying that next month's sales figures may prove me right. Bring back the disk!

Steve Pitts
Elgin,
Morayshire

You're right in that you're not the only reader with these views, Steve; I've had a number of letters saying the same thing. On the other hand, I've had letters applauding the decision. We're keen to respond to what our readers want from the magazine (one of the reasons for dropping the disk in the first place). We are prepared to listen, and so I suggest that everyone who wants an active part in deciding the way the magazine goes is to turn to page 80 and answer our questionnaire. Adam

THE PLAIN ENGLISH GUIDE TO MAKING THE MOST OF YOUR PC

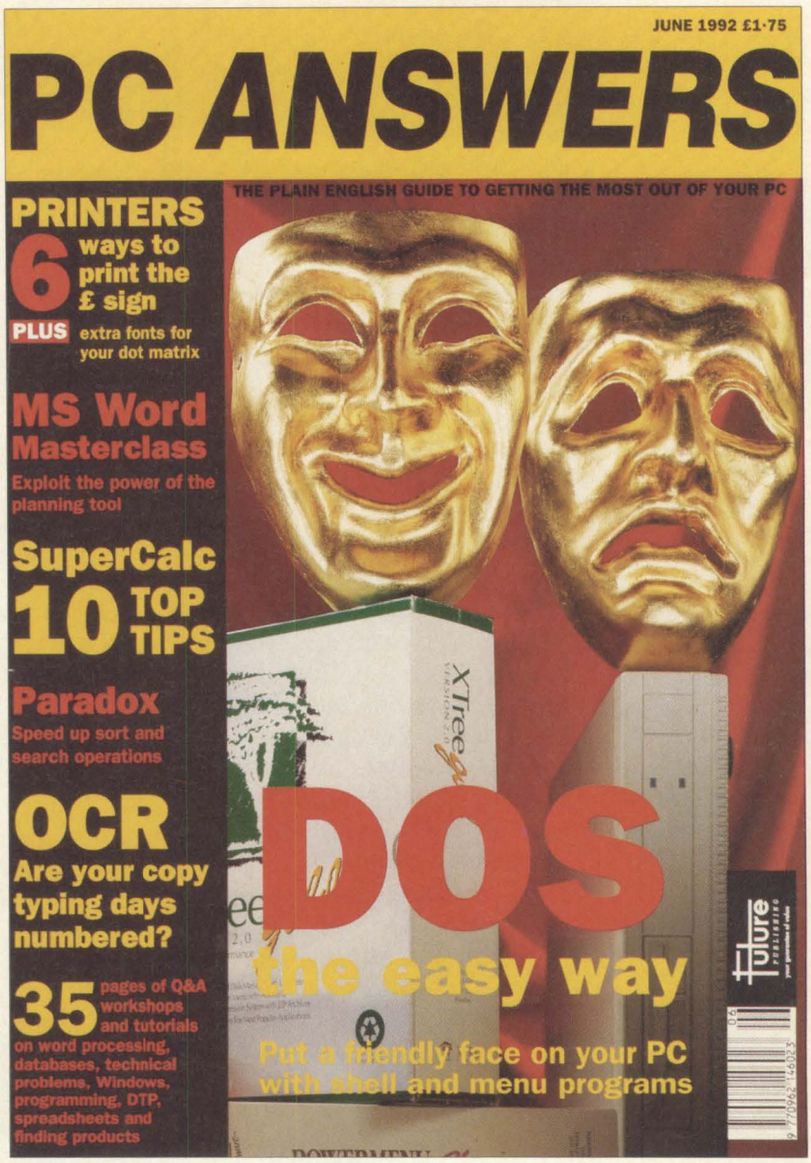
£ sign printing problems? Then look no further than our total £ sign problem solver

MS Word: Learn to use the power of the outliner in the first of our series of essential Masterclasses

SuperCalc users! 10 top tips to save you time and effort

OCR: Is the future of copy typing really in the balance? We give you the answers

DOS shells: All you need to know to avoid the C prompt


JUNE 1992 £1·75
PC ANSWERS
THE PLAIN ENGLISH GUIDE TO GETTING THE MOST OUT OF YOUR PC
PRINTERS
6 ways to print the £ sign
PLUS extra fonts for your dot matrix
MS Word Masterclass
Exploit the power of the planning tool
SuperCalc 10 TOP TIPS
Paradox
Speed up sort and search operations
OCR
Are your copy typing days numbered?
35 pages of Q&A workshops and tutorials on word processing, databases, technical problems, Windows, programming, DTP, spreadsheets and finding products
DOS
the easy way
Put a friendly face on your PC with shell and menu programs
Future Publishing

35 pages of unique Q&A workshops packed with hints, tips, techniques and tutorials to make life easier and more productive

AVAILABLE FROM ALL GOOD NEWSAGENTS. OR CALL OUR SUBSCRIPTIONS HOTLINE ON 0458 74011

JUNE ISSUE – ON SALE NOW

Give it some stick

Play your favourite arcade games with the aid of a superb joystick from Spectravideo. We have 21 up for grabs – all you have to do to get your hands on one is take part in our easy-to-enter competition...

Gosh, what a snazzy-looking joystick! And we've got a selection of 21 just as snazzy Spectravideo joysticks just waiting to be won

Every game player knows that the one thing essential for a place at the top of the high score table is a good joystick. If you're to have any hope for blasting those invaders out of the sky, pulverising those rocks from outer space, or gobbling the dots without blundering into a ghost then a good interface between your reactions and the computer is required.

And coincidentally enough, we have 21 joysticks just waiting to be won. Er, no, you don't actually win all 21 joysticks, but there are seven each available for Amiga, PC and ST owners (so make sure you indicate the machine you have on your entry otherwise we won't know which kind to send).

There is a variety of joysticks available, boasting such features as 'ergonomical design', 'positive micro-switch action', 'attractive space-age styling' and 'reverse tumble drying action'.

So what do you have to do to get your hands on one of these delectable prizes? Simply work out the answer to the six questions and write the letters that correspond with each number on the back of a postcard and you've as good as got a spanking brand new joystick winging its way to you. (Erm, as long as you're lucky enough to be picked out of the hat above the countless millions of others who enter, that is.)

Scribble the answers down on the back of a postcard (or sealed-down envelope) along with your name, address, machine type and your favourite pop star to the competition address:

Can you spare 10p, Guv?
Public Domain
29 Monmouth Street
Bath BA1 2DL

PD

2B or not 2B? These are the questions...

1. What was the first video arcade game?
A Computer Space
B Space Monkeys
C Shove Ha'penny

2. Who invented coin-op Space Invaders?
A Ron's Arcade Games, inc
B Nintendo
C Taito

3. What were you blasting in Asteroids?
A Zorgons from Zorgon Five
B Rocks
C Kittens

4. What control system did *Centipede* use?
A Joystick
B Trackerball
C Telekinesis

5. How many dots are there in a *Pacman* screen?
A 244
B 3
C 3,563,643

6. What company did Nolan Bushell found?
A Nolan's Arcade Game Emporium
B Atari
C Nintendo

The rules:

Rules are rules, and we like to have them for nothing more than we're a bunch of pompous, vindictive bunjee jumpers. And if we had our way, there'd be national service for everybody under 32.

- For the last time, employees of Spectravideo and Future Publishing can't enter, and that means you Neil West
- The joysticks will be awarded to the first seven correct entries for each machine plucked out of the Ed's busby, and will be mentioned in a future issue
- If you don't win then always remember it's the taking part that counts. The Ed's decision is final
- The closing date is 30th June 1992
- No multiple entries are allowed. Anyone who tries this will be strapped down and forced to watch *Cagney and Lacey*

Programming & Utilities

If you want to back-up your hard disk, go on-line with your modem or give your computer a new front end, then read on. Tim Howell looks at programs that do this and much, much more...

REVIEWS INDEX

Canary (PC)	28
DosAcc 2.8 (ST)	22
Elf-Tree (PC)	18
Flexibak Plus 2.0 (PC)	21
Multiplayer 1.71 (Amiga)	19
NComm 2.0 (Amiga)	23
ProbeST (ST)	28
Radbench (Amiga)	25
ST Tools (ST)	19
Term 2.0 (Amiga)	24
Treacle Utilities (PC)	22
Ultimate Bootblock Collection (Amiga)	28
VDOS ProQueue (ST)	25

This month could be called a month of sequels – or at least upgrades – which is a good sign that the PD and shareware scene is alive and well and that programmers are supporting their products. What's especially encouraging is that these sequels are definite improvements: *Flexibak* is faster and more efficient at backing up your PC hard disk, while *NComm 2.0* and *Term 2.0* almost go as far as redefining the standard of Amiga communications software completely. Needless to say (but I'll say it anyway) these programs definitely push the boundaries of PD and shareware software as close to, if not past, the levels of quality laid down by similar commercial programs.

Admittedly many of these programs are shareware so some payment is required if you like the programs – and you're bound to – but at least you can try them out before you outlay any money. And it's still less that what you'd pay in the high street.

Another characteristic of this month's reviews is the wide range of programs that are out there. Whether it's a sound module player on the Amiga, one of the greatest desktop accessories on the ST, or a collection of batch file commands on the PC, it's reviewed in this section.

Yep, the next few pages definitely live up to the reputation that PD and shareware has of providing useful software that you can't get anywhere else.

Elf-Tree

With the number of DOS front ends available for the PC, it's sometimes hard to believe why so many keep on coming out. Well, there's a reason why *Elf-Tree* has come out – it's good.

Elf-Tree is a combination file and directory manager that is packed with functions. Many of these are found on other similar tools, but there are a few extra ones worthy of note.

One of the more interesting ones, and quite a basic one at that, is the program's ability to make use of the EGA and VGA modes. If you do take advantage of them, you can view everything in a smaller-sized font, enabling you to display more on-screen information at once.

Elf-Tree is also reasonably fast in operation, largely due to the fact that it saves a data file with details of how the directories on a disk are set up, loading that instead of reading a directory each time. Of course, the data file is changed whenever anything is changed on the disk, but updating and reading that file instead of the entire directory does speed things up.

```
Attrib  Copy  DirTree  Edit  Find  Move  Note  Print  Rename  Space  Tag  View
Edit selected file(s)                                  2 35 pm  Wed Apr 22

Current Path>C:\ELFTREE                                          ? - Help
```

Name	.Ext	Size	Date	Time	Attributes
<PARENT>		<DIR>	3-26-92	9:31a	D
!		1,072	1-25-92	12:00p	
AUTOEXEC	.DOC	2,503	1-25-92	12:00p	
DRIVEC	.ETG	16,712	4-22-92	2:34p	A
ELFTREE	.CHL	96,338	1-25-92	12:00p	
ELFTREE	.HLP	169,564	1-25-92	12:00p	
ELFTREE	.ZIP	173,695	4-08-90	2:24a	
ET	.EXE	912	1-25-92	12:00p	
ETMAP	.C	576	4-21-92	8:01a	A
ETMAP	.D	896	4-18-92	2:36p	
ETT	.BAT	51	1-25-92	12:00p	
ORDER	.DOC	1,784	1-25-92	12:00p	
README	.DOC	19,833	1-25-92	12:00p	
SAMPLE	.ETU	2,093	1-25-92	12:00p	
SITELICE	.DOC	16,738	1-25-92	12:00p	

```
Files:  15   Size:  504,795        v1.E08  Shrink: 3K  Mode: Delay
```

Using the cursor keys it is possible to select *Elf-Tree*'s options which are displayed along the top of the screen. Down the bottom you have a standard listing of the directories and files on your disk

As far as standard options are concerned, *Elf-Tree* comes with all the basic file copying, deleting, viewing and sorting functions, which can be achieved from either a standard directory listing of the files, or from a tree diagram. The program is also quite powerful in terms of how many items it can manage; up to 16,384 files, 1,000 directories and across 26 disks, including networks.

Using *Elf-Tree* is relatively straightforward, although the control system can be fiddly. The commands are chosen with the cursor keys; sometimes when you try to view files, say, in the bottom half of the screen, you change between them using the cursor keys, and then you have to use the same cursor keys to change between option menus – the whole thing becomes very unwieldy to the beginner. Once you get used to these intricacies, though, the program is fairly easy to manage.

There are two different ways of registering *Elf-Tree*. If you pay the standard fee of $35 you get the latest version of the program, a professionally-printed manual, technical support, notice of updates and one free update. If you pay $50 you get all that plus *Elf-Tree*'s text editor and a file viewer.

Elf-Tree is a powerful and, once you get used to it, straightforward program to use. It's not quite as easy to use as, say, *Disktree*, but it has enough functions and nice touches to be of use to most PC owners, particularly to those with large capacity disk drives and loads of files.

```
Copy  Expose  Find  Graft  Hide  Move  New  Print  Ren  Scan  Tag  Untag  F8=Tree
Make a New child directory                          6 54 pm  Tue Apr 21
 Path >> C:\ELFTREE

        DAVEGRAB
        DLOADS
        DOS33
        DPAINT ─┬ ARTWORK
                ├ CLRFONT
                ├ DIGIFONT
                └ MONOFONT
        DX
        EASY
        ELFTREE
        FRACGRAB
        FRACTINT
        GAMES
        GRAB
        MOUSE
        PC ──── PD.6 ──── AGENT
        PRES
        SMS
        ST ─┬ IMS
            └ SONG
[ENTER] - Select   [ESC] - Leave   [?] - Key Help   [F1] - Complete Help
```

If you want to, you can display the different directories on-screen in the form of a tree diagram, making it easier to hunt down sub-directories

IN BRIEF

Type	Shareware
Registration fee	$35/$50
Author	Alan J Avery
Requirements	512K

Available from
Testware, 46 The Avenue, Harrogate, North Yorks HG1 4QD ☎ 0423 880471

PC 79%

ST Tools

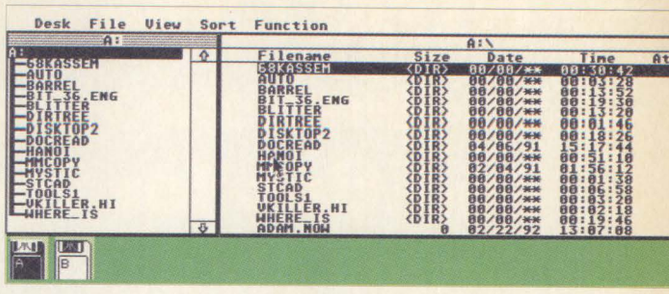
When it comes to disk and file sector editing tools, the ST isn't over-endowed. If you're after such a tool, you're hardly spoilt for choice. That choice has grown by one program with the arrival of *ST Tools*, an easy-to-use and powerful utility.

As soon as the program loads, you're confronted with a screen split vertically into two windows; the left side shows what directories are on the disk you're investigating, while the right lists the files and sub-directories that are within these directories.

This isn't anything special in itself; it's what you can do to these files that is interesting. *ST Tools* enables you to examine the files very closely, looking at their data in hexadecimal, or searching them for a particular string of hexadecimal data or ASCII code, such as a word.

Just as files can be examined in this way, so can individual sectors on a disk and your ST's memory as well. The Hexdump Memory option enables you to examine any part of the ST's memory, including RAM, ROM and hardware chips such as the DMA, video or sound chips, although the RAM is the only area that can be edited.

Editing is achieved by simply clicking on the edit button, moving through the data and, once you find something you want to change, clicking on it with the mouse button and entering the new value. Once you have done this you can save the changes you have made; permanently for the disk or file, and only temporarily for the RAM.

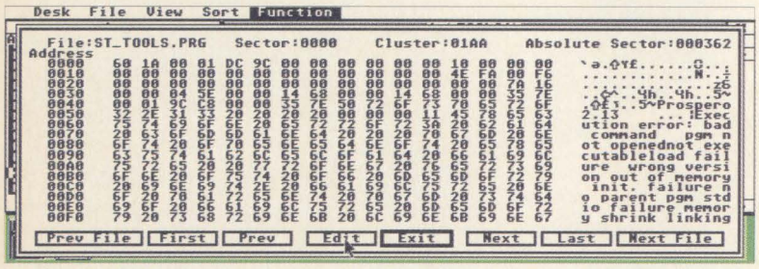


When *ST Tools* first loads you're presented with this main screen; the directories on the disk listed down the left-hand side of the screen in the form of a directory tree, and the files within them down the right

Various disk-related functions are also supported. The Disk Information option enables you to look at how a disk is set up, including such things as the number of bytes per sector on the disk, the total number of sectors and the label of the disk. It is also possible to examine the File Allocation Table on a disk to see how the disk format sets up the files that are contained on it.

While the program is easy to use, it is a bit sluggish, probably something to do with it being largely written in Fortran instead of the more common assembly language or C. One particularly annoying aspect of using the program occurs when you carry out a function, such as examine the ST's memory, and then return to the main screen to check details about the arrangement of the files; the previous screen doesn't clear itself completely, obscuring the information you have just called up. Another click on the file box and this clears the unwanted text, but this shouldn't be necessary.

Other than that *ST Tools* works well and is useful to have around.



Once you find the file you want to look at on the disk, you can examine it using the hex editor. This displays the program's data in hexadecimal and enables you to look through it page by page

IN BRIEF

Type	Shareware
Registration fee	$10 (£6)
Author	Stephen Cornio
Requirements	512K
Disk number	E074
Available from	Rust PD, 361 Ordanance, Enfield, Middlesex ☎ 0992 717828

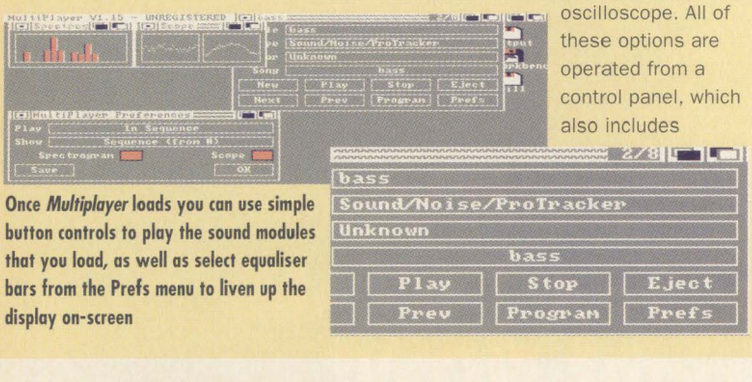
ST 69%

Multiplayer 1.15

Did you enjoy *IntuiTracker* on last month's cover disk? Then you'll love this. It's another program that enables you to play sound modules on your computer without having to load up a tracker program.

Instead of limiting you to *Soundtracker* and *Noisetracker* modules, though, *Multiplayer* supports a number of other module formats. These include: *Soundtracker* (both 15 and 31 instrument modules), *Protracker*, *Noisetracker*, *Startrekker*, *MED* and *Octamed*, *Oktalyzer* (four- and eight-channel modules), *SoundFX*, *Future Composer*, *JamCrackerPro*, *SoundMonitor*, *SidMon*, *Delta Music*, and those produced by *MarkII*. In other words, it supports the 20 or so most popular formats.

Modules from any of these programs can be loaded into *Multiplayer* and then played in sequence; continuously if you want. While the modules are playing you can also display a 'Spectrogram' of the music, which is basically an animated bar graph of the frequencies of the module currently playing, or a 'Scope', which is a lot like a display from an oscilloscope. All of these options are operated from a control panel, which also includes information about the author of the module, the type of module that is being played and how much of the song has been played. Other controls, similar to those used on a CD player, enable you to play, stop and fast forward between modules.



Once *Multiplayer* loads you can use simple button controls to play the sound modules that you load, as well as select equaliser bars from the Prefs menu to liven up the display on-screen

The program has been designed to be as 'system friendly' as possible, (as the author puts it), by not interfering with high-level interrupts that could affect other programs. Basically this means that it can multi-task with other programs and it can work fully under Kickstart 2.0.

There are a couple of other technically interesting features. While the main *Multiplayer* program file is about 70K, the program doesn't use this much memory, only loading in the parts of the program, such as players for particular modules, that it needs to. The author claims that usually only about 15K of the program is loaded at any one time, although this doesn't include the modules that are to be played. Also, it is possible for those people competent in assembly language to interface modules that aren't supported by the program.

The $15 (about £9) registration fee you get a version of *Multiplayer* that enables you to load and save sequences of modules and a full ARexx port which could, for example, let the program be controlled through other software.

While *Multiplayer* is a program that will have limited interest to most people, what it does it does well. If you have a collection of sound modules, of virtually any type, and you don't want to go to all the trouble of loading the original music programs, then you should seriously think about getting *Multiplayer*.

IN BRIEF

Type	Shareware
Registration fee	$15 (£9)
Author	Bryan Ford
Requirements	512K
Disk number	Fish Disk 600
Available from	George Thompson Services, Cucumber Hall Farm, Cucumber Lane, Essendon, Herts AL9 6JB ☎ 0707 664654

AMIGA 81%

TOTAL! The only magazine dedicated to Nintendo gamers, full of reviews and tips for the NES, Game Boy and Super NES!

TOTAL!
100% FOR ALL PLAYERS OF NINTENDO
■ NES
■ Game Boy
■ Super NES
May 1992
Issue 5
£1.95
A totally independent mag from Future Publishing
SUPER NINTENDO HITS THE STREETS!
WIN! 50 SUPER NINTENDO SYSTEMS
We review and rate the games released with the brand new Super NES!
Game Boy and NES – 10 pages packed with tips!
Keep smiling Andy! This flongy actually looks like buying an issue!
PLUS!
MORE Game Boy!
Faceball! Turrican, Asteroids Plus loads more!
MORE NES!
New Zealand Story! Rainbow Islands plus loads more!
MORE Playing Tips!
MORE Nintendo than any other mag anywhere!
Future PUBLISHING
Your guarantee of value

Our dead smart logo – look out for it in the shops!

16 pages full of Game Boy reviews!

18 pages crammed full of NES reviews!

Nintendo's stonky new super console – read all about it!

10 pages stuffed with tips!

Ooouch! Hey, just watch it! These arrows are a bit flippin' sharp. Careful, there's skin in that!

OW! I hate these flippin' adverts. It's all your fault Dyer, 'ooh, lets be in the ad' you said! Stupid great berk!

Like WOW! Heavy-duty compo or what?

Er... the bar code (ignore this bit)

Andy 'Thicky' Dyer. Writer and twonk

Steve 'Misery Guts' Jarratt. Editor and dweeb

Got a Nintendo? Then get TOTAL! Issue five is on sale right NOW!

Flexibak Plus 2.0

Thanks to hard disks you can save megabytes of essential data with ease. But if they go wrong you're up *that* creek, not just without a paddle but without a boat as well. That's why you need to make back-ups. Time to call *Flexibak*...

With the amount of work that most hard drives have to do, the more they are used the less reliable they can become; disk clusters are continually updated, with files and parts of files being moved all over the place, gradually turning the drive into a mess and increasing the chance of the data being corrupted.

This threat, and the possibility of files being corrupted or deleted through normal usage, means you should make regular back-ups of your hard disk. If you do, then you'll have fewer problems if something nasty should happen to it. The backed-up data can simply be restored from floppy disks on to the repaired hard drive or a replacement one, ready for you to use immediately.

Flexibak is a program that can make backing up your hard disk easy, although to use it you need to have a basic idea of how the PC uses hard disk drives and disks. It's not a program for absolute beginners, but you don't need to have a BSc in Computer Science either.

In simple terms, *Flexibak* enables you to make a back-up of either your entire hard disk or parts of it, even down to individual directories and files. When it does this it can compact the data so it takes up less space, and so you use fewer disks, or it can save the files directly. Similarly, this data can be restored back on to your machine's hard disk should anything happen to it.

Flexibak keeps track of the files it has backed up, so that when you put more files on your hard disk, they are just added to its database of what files are stored where. When you back-up these new files, they are added to the back-up files of the whole hard disk. Therefore you only need to make a complete back-up once, which saves a lot of hassle later on. At the same time, *Flexibak* keeps track of any changes that you make to the way it is set up, adding these changes to the database as well.

Flexibak 2.0 is an update to the earlier version of the program which was reviewed way back in issue one of *Public Domain*. This latest version has been upgraded in a number of different ways, mainly in the departments of speed and efficiency, although back-up files of the earlier versions aren't compatible with the latest version. The improvements that have been made, coupled with the program's ease of use, make *Flexibak* an essential program if you're concerned about the data on your hard disk and want to do something about it.

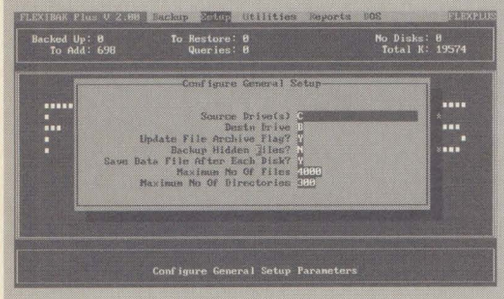
IN BRIEF

Type	Shareware
Registration fee	£39
Author	Adrian Mardlin
Requirements	640K • Hard disk

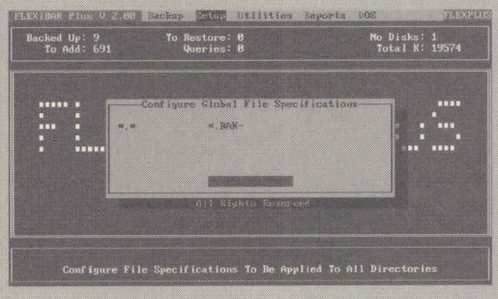
Available from:
Nildram Software, 26 Stanley Hill, Amersham, Buckinghamshire HP7 9BD

PC 90%

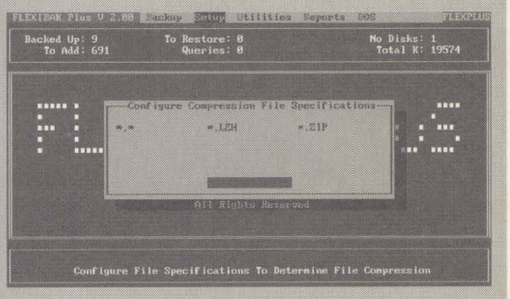
With 28 disks at the ready, let's see how to back up our trusty PC's hard disk


FLEXIBAK Plus V 2.00 Backup Setup Utilities Reports DOS FLEXPLUS
Backed Up: 0
To Add: 698
To Restore: 0
Queries: 0
No Disks: 0
Total K: 19574
Configure General Setup
Source Drive(s) C
Destn Drive D
Update File Archive Flag? Y
Backup Hidden Files? N
Save Data File After Each Disk? Y
Maximum No Of Files 4000
Maximum No Of Directories 300
Configure General Setup Parameters

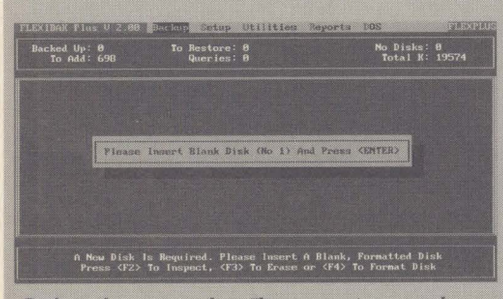
❶ Once you have formatted disks to back up the data to – you need 28 720K 3.5-inch disks for a 20Mb hard drive (the program tells you this too) – the next step is to set up *Flexibak* so that it stores the correct data. First go to the General Set-Up menu so that the program knows which hard disk it's backing up, and to which disk it's saving the backed-up data to



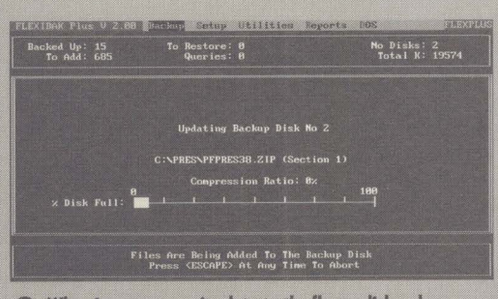
❷ The next step it to set up the Global File Specs. This tells that program what files it should always back up, and which ones it shouldn't. The '*.*' tells it to back up all files, while we've told the program to ignore those files with the suffix '*.BAK', as indicated by the '-' symbol. BAK files are usually duplicate or back-up versions of files and we don't need to copy those twice



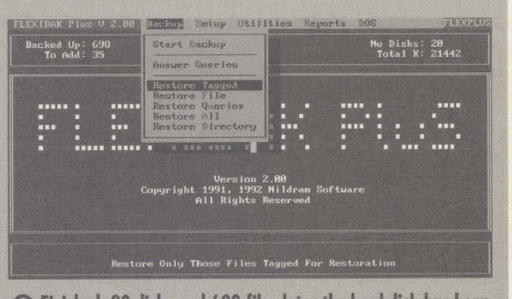
❸ Once the types of files *Flexibak* is to back up have been determined, the next step is to sort out which ones to compress. The '*.*' wildcard tells the program to compress them all, but you may not want to do that, especially if you have archived files which are already compressed. After this it's a good idea to Re-Log the disk so *Flexibak* registers the changes you made


FLEXIBAK Plus V 2.00 Backup Setup Utilities Reports DOS FLEXPLUS
Backed Up: 0
To Add: 698
To Restore: 0
Queries: 0
No Disks: 0
Total K: 19574
Please Insert Blank Disk (No 1) And Press <ENTER>
A New Disk Is Required. Please Insert A Blank, Formatted Disk
Press <F2> To Inspect, <F3> To Erase or <F4> To Format Disk

❹ That's the setting up done. The next step is to start the backing up process. Simply go to the first menu and select Start Back-Up. *Flexibak* prompts you to enter the first (of many) disks and it starts to compress and write the information to it



❺ When it starts to write data to the floppy disk, a bar comes up on-screen detailing graphically how much space on the disk has been filled. Once the program has filled one disk, it prompts you for the next, until the entire hard drive is backed up



❻ Finished. 20 disks and 698 files later the hard disk has been backed up. Now if anything happens to the hard disk you can restore the files easily. You can install individual files, a selection files, or the entire hard disk.

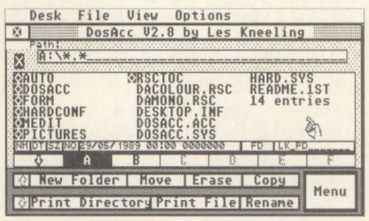
cont. on p22

cont. from p21

DosAcc 2.8

One of the most notable features of the ST is its ability to have desk accessories, or DAs as they're often called. These files are usually small utilities or handy programs that are useful to have around. What makes them special, though, is that you can call them up simply by going to the Desktop menu on your machine, pulling it down and selecting the programs from there, rather than having to find them hidden away in folders on your disks.

This is especially handy if you have a hard drive; when you call up the DAs then they can appear on-screen within a couple of seconds. Floppy drive users still have to have the disk that the data for the DA is on, but this needn't be a problem if you know where the program is.



One of *Dos Acc's* many options is its disk menu which lets you perform common file operations

DosAcc could be described as the ultimate DA. The program does all manner of disk, file and other functions, far too many for them all to be mentioned here, but here's a list of a few of the more interesting ones:

- Display the amount of free diskspace on a disk
- Display and set the date
- Display of the current disk drive being used and how it is set up (single-sided, double-sided, etc)
- Format disks with standard or extended capacities
- Copy standard or extended disks
- Display and set the name of a disk, its serial number and the way the system and printer is set up
- Print out a disk directory in one or three columns
- Display the number of tracks and sectors on a floppy disk
- Copy and erase single or multiple files on a disk
- Display and change the attributes of a file, such as making it read-only or read and write
- Plus a number of standard functions that have all been included in the one program.

DosAcc also comes with an associated program which is a replacement for Atari's own Control Panel. *Alternative Control Panel* enables you to set up the system the way you want it, such as setting up its colours, the speed of the mouse, how the serial and parallel ports are configured, amongst other things.

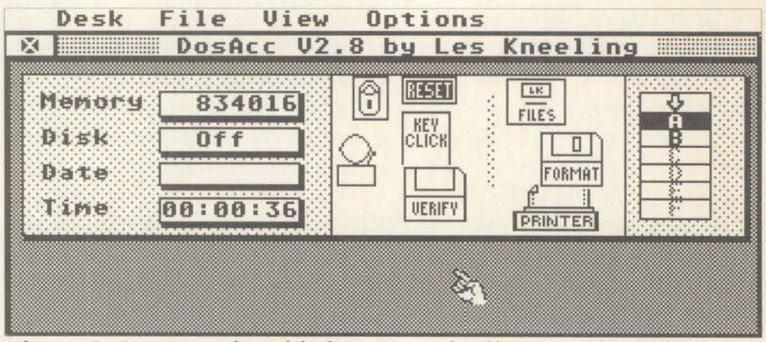
One other interesting feature of *DosAcc* is that it comes with two resource files, one for those who have mono STs, and another one for those with a colour system. Not many programs support both standards and this is a nice touch, particularly for a PD program.

The numerous functions that *DosAcc* offers, plus its high level of presentation, make it a recommended purchase for all ST users.

IN BRIEF

Type	PD
Author	Les Keeling
Requirements	512K
Disk number	UTI13
Available from:	
ST Club, 2 Broadway, Nottingham NG1 1PS ☎ 0602 410241	

ST 85%



When run, *DosAcc* pops up in the top left of your screen and enables you to perform basic disk, file, formatting and printing options from a click of the mouse button – easy!

Treacle Utilities

This is a collection of utilities which add a variety of functions to your batch files, making them look more professional and achieving things that you can't do using normal batch commands.

Some of the features that the *Treacle Utilities* add include pop-up menus, pop-up windows, boxes, sliding letters, flashing messages and exploding boxes. There is also an assortment of minor commands that enable you to add other elements to your batch files.

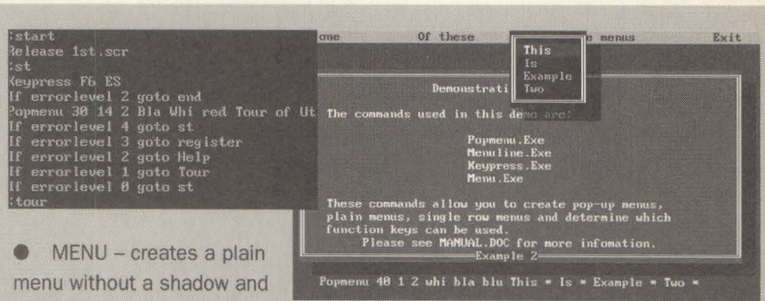
As is the norm with batch commands, they all have to be entered, using a text editor, into a text file for the computer to run. All of the commands included on the *Treacle Utilities* disk have different parameters that have to be entered as well as the command itself. So, for the command *PopMenu*, which creates a pop-up menu on-screen, what you need to enter would be along the lines of:

```
POPMENU 25 82 2 WHI MAG
BLU This is a * test of
the * POPMENU * command
```

The parameters tell the command where to position the menu on screen, how many lines should be in the border, and what colours to make the box, the text and the background, plus the text that should be printed in the lines of the menu. The unregistered version of the program only lets you enter four such options from the menu, while the registered version gives you as many parameters as you like.

Of the 29 different commands that come with the unregistered version, here's a brief run-down of some of the more useful ones:

- BEEPER – play a single or two-tone beep through the speaker
- COLMON – detects if monitor is colour or monochrome
- ERRORMSG – flashes a message on-screen and then disappears
- EXBOX – creates exploding boxes, as well as clearing the screen
- KEYPRESS – detects only the keys you tell it to


:start
Release 1st.scr
:st
Keypress F6 ES
If errorlevel 2 goto end
Popmenu 30 14 2 Bla Whi red Tour of Ut
If errorlevel 4 goto st
If errorlevel 3 goto register
If errorlevel 2 goto Help
If errorlevel 1 goto Tour
If errorlevel 0 goto st
:tour
Of these
Exit
This
Is
Example
Two
Demonstrati
The commands used in this demo are:
Popmenu.Exe
Menuline.Exe
Keypress.Exe
Menu.Exe
These commands allow you to create pop-up menus, plain menus, single row menus and determine which function keys can be used.
Please see MANUAL.DOC for more infomation.
Example 2
Popmenu 40 1 2 whi bla blu This * Is * Example * Two *

Using straightforward batch commands the *Treacle Utilities* can create attractive screens and pull-down menus

- MENU – creates a plain menu without a shadow and won't disappear when you call up another menu
- POPMENU – creates pop-up menus which don't affect the screen underneath them
- POPWIN – makes windows appear and then disappear
- SLIWRITE – makes characters of words fall individually from the top of the screen or slide in from the left
- TICWRITE – writes characters on-screen individually, either silently or with a ticking sound
- YN – detects if the user has pressed either the Y or N key

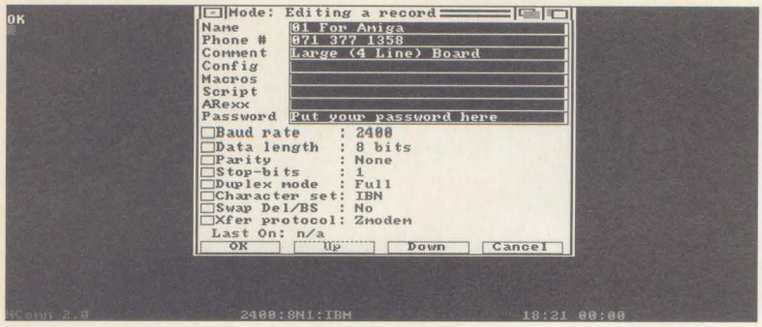
As you can see, there is a wide variety of different commands, most of which can be used to add an extra dimension to your batch files. To use them all properly requires some understanding of how batch files work, as the results produced by some of them lead on to other parts of the batch file. For example, when a key is pressed, the batch file must know what to do next.

If you know your way around batch files, though, and you want to add a professional and attractivetouch to them, then the *Treacle Utilities* are worth checking out.

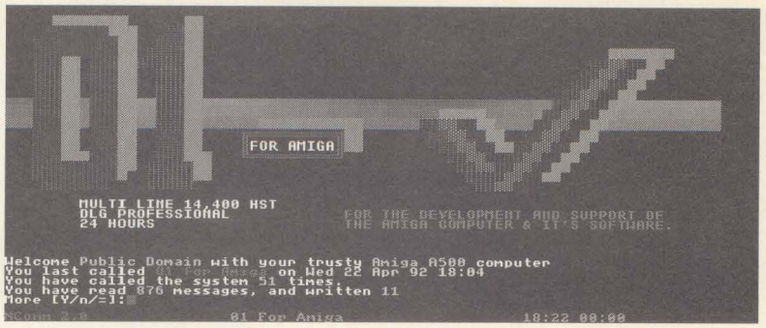
IN BRIEF

Type	Shareware
Registration fee	£17.50
Author	John B Holder
Requirements	512K
Disk number	DMG28
Available from:	
Puppy Power Software, PO Box 54, Whitstable, Kent CT5 3YW	

PC 72%



It's possible not only to keep a phonebook of your commonly-used BBSs, but you can also configure the program to change baud rates, transfer protocols and other settings for each one


FOR AMIGA
MULTI LINE 14,400 HST
DLG PROFESSIONAL
24 HOURS
Welcome Public Domain with your trusty Amiga A500 computer
You last called on Wed 22 Apr 92 18:04
You have called the system 51 times
You have read 876 messages, and written 11
More [Y/n/=]:
01 For Amiga

Using *NComm*'s eight-colour ANSI emulation mode, getting on -line can be a much brighter experience compared to many other comms packages. Unfortunately it does tend to slow things down

NComm 2.0

The battle for the best Amiga comms package has really hotted up this month, with the release of two brilliant programs. Here we look at the latest version of *NComm* to see how it fares against the competition...

With the number of good comms packages available for the Amiga in the public domain, for a program to stand out it has to be really good. Previous versions of *NComm* have always been treated with respect, and now version 2.0 of this program should make it even more revered, offering a number of new and useful features.

Apart from the standard features that *NComm* (and most other similar programs) has always had – such as ANSI emulation, uploading and downloading using the X, Y, and Zmodem transfer protocols, text capture, etc – version 2.0 has a number of innovations. These include:

- A faster version of the program's script language which enables you to log on and perform major operations on bulletin boards, such as dialling the number, entering your password and, say, capturing your messages for you. (it won't answer the messages, though – that's up to you). This is handy if you want to log on to a BBS at a particular time of day but you won't be around to go and log on yourself.
- ARexx interfacing – one of the most important of the additions, ARexx is a language that enables different programs to communicate with each other, taking advantage of the Amiga's multi-tasking abilities. This capability enables you to, in theory, use ARexx to access a text editor and command it to edit a file and then return to *NComm*.
- Support for the 1200/75 split baud rate. This is used by the Viewdata and Micronet communications systems. While having this speed isn't a recommendation in itself, a lot of cheap modems have 1200/75 as their maximum baud rate and some bulletin boards still work at this speed. *NComm 2.0* is one of the few new programs that supports it.
- A diary of information about the last time you logged on to a board is stored in a 'phonebook'. This makes it easier for you to keep track of when you last used a particular bulletin board, something difficult to remember if you log on to lots of them.
- A transfer bar. When you download a file the program can now display a graphic bar on-screen that shows how much of the file has been downloaded. This is a simple idea, but one that's very handy and makes it easy to keep track of what's happening.

The standard features are also quite impressive. Most transfer protocols are supported, including the obligatory X, Y and Zmodem, but less common standards such as Jmodem and Compuserve-B are also available, although they are used on far fewer bulletin boards.

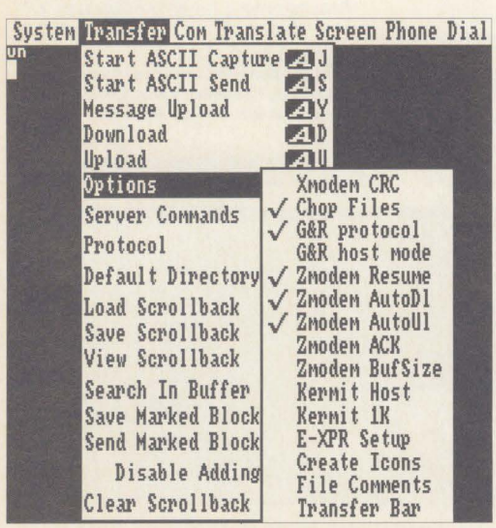
NComm also has full ANSI support, so it can display the custom text and characters that have become standard on many boards, in both colour and black and white. There is also an ANSI mouse option which enables you to position the cursor anywhere you want when entering a message on a full-screen ANSI editor.

A full phonebook is included. It enables you to store the name, phone number, baud rate, comments and other items about the bulletin boards that you call regularly. Again, this is found on most comms packages, but you'd miss it if it wasn't there.

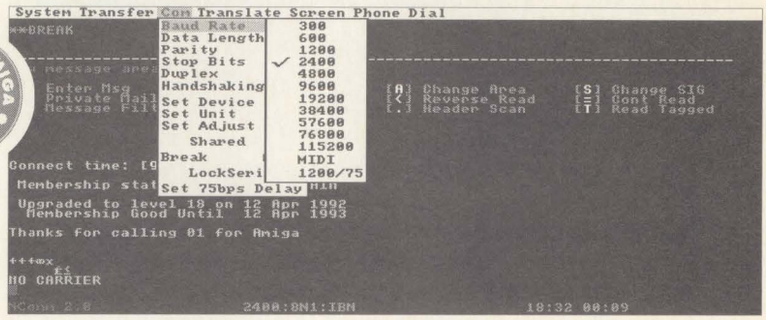
Apart from that there are all the usual features: baud rates up to 115,200 baud, including through a MIDI interface; uploading, downloading and text capture; customising of the palette, title bar and graphics mode; and so on. Suffice to say that it's a complete comms package.

It's also complete with a registration fee – *NComm* is no longer a PD program but is now shareware. Its programmers justify this cost by saying that they spend so much time and effort putting the program together that at last they deserve some recompense. Fair enough, and the $35 registration fee is still very good value.

All serious Amiga comms users should have a look at *NComm 2.0*. If you're a Kickstart 2.0 user, though, don't put all your eggs in one basket and try out *Term 2.0a* (reviewed on page 24) as it's also a good program and may suit you better.



Not only do you have a wide range of transfer protocols, you also have a wide range of settings for most of them



This menu enables you to set up the program manually. Here the rather lengthy baud rate menu gives you a selection ranging from 300 to 115200, and also includes the less common 1200/75

IN BRIEF

Type	Shareware
Registration fee	$35 (£20)
Author	Torkel Lodberg
Requirements	512K
Disk Number	PU171

Available from:
Vally PD, PO Box 15, Peterlee, Co Durham SR8 1NZ ☎ 091 587 1195☎ 0276 681864

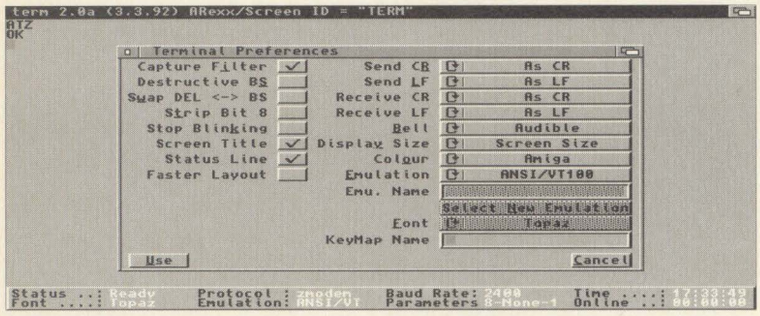
AMIGA 93%

cont. on p24

cont. from p23

Term 2.0a

Term 2.0a is the latest version of a relatively unknown program, but soon its name should be on the tips of most comms users' tongues...



You can customise *Term 2.0a* to a great degree. The Terminal Preferences menu enables you to set the program's terminal emulation mode and how to treat different characters, amongst other things

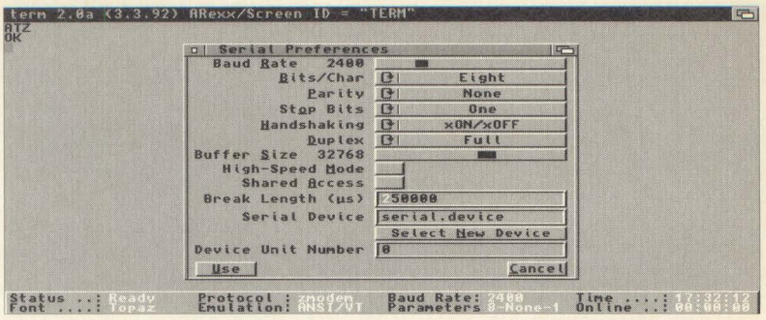
With all the problems owners of Amiga 500 Pluses have when it comes to running software for older the Amigas, it's good to see a program that takes advantage of the most recent Kickstart and Workbench-equipped machines – in fact, it will *only* run on these machines.

Term 2.0a is the latest version of an obscure communications, or comms, program for the Amiga. Basically the program sets up the Amiga as a terminal enabling you to use a modem to call other computers, handling the transferral of data and files. There are a number of very good comms programs available for the Amiga in the PD and shareware arena, including *JRComm* and *NComm* (the latest version of which is reviewed on page 23), and it's a relief to at last find a program that rivals these for ease-of-use and functionality.

In terms of its basic functions, *Term* is well-endowed. It can handle all baud rates from 300 to 115200 (although the standard Amiga, with a 68000 processor, can only go as fast as 31250 baud), although it doesn't support 1200/75 baud modems. Several popular file protocols are also supported, including the speedy Zmodem and the older X and Ymodem. The program also enables you to load other, external protocols, including custom XPR libraries, which let you keep abreast of the latest protocols that are brought out.

Quick 'n' easy

All of these functions are accessed via pull-down menus or using the keyboard shortcuts that exist for most of *Term*'s functions. The program's main settings, such as baud rate, transfer protocol and terminal emulation, are displayed at the bottom of the screen. Because most of the program's functions have keyboard commands, unlike other programs which have only a few functions accessible in this way, this is especially handy when you're on-line; you can use the program more quickly, thus saving time that would add to your phone bill.



Making use of some of the features in Workbench 2, *Term* uses simple slider controls and buttons to adjust parameters that would normally be achieved in other programs by using pull-down menus

Term has been designed specifically to take advantage of the newer Kickstart, incorporating the standard gadgetry with the added functionality of the update. The program has to run on a machine that has both Kickstart and Workbench 2.0, which limits the program's scope as far as other Amiga owners are concerned, but it also points the way forward for programs and programmers to take advantage of the new operating system. In fact, this was the rationale behind the release of the package; the programmer has released the source code with the program, hoping that it will entice more people to program for Kickstart and Workbench 2.0.

Talking features

Term has a couple of interesting and uncommon features. It is possible to switch on a Speech option which alerts the user when certain things happen, such as when a carrier is lost or the modem has connected to another modem. And, like the latest version of *NComm*, when data is being transferred two bars are displayed on-screen indicating the amount of data that's been transferred and the amount of time remaining until the transfer is completed.

The program also recognises 71 different file types from its built-in library, so that when file is downloaded and recognised by *Term*, it will add a small comment to it to tell you what kind of file it is. Handy.

Compared to *NComm 2.0*, *Term 2.0a* has a couple of limitations. There is no script language to control the program 'remotely', nor is the ARexx interface as elaborate. Both of these functions are really only of use to 'power' users; those who are seriously into comms and have the knowledge to be able to use them. You also have to possess ARexx in the first place, but as this is packaged with all Amigas that come with Workbench 2.0 if you can run *Term*, you should have ARexx.

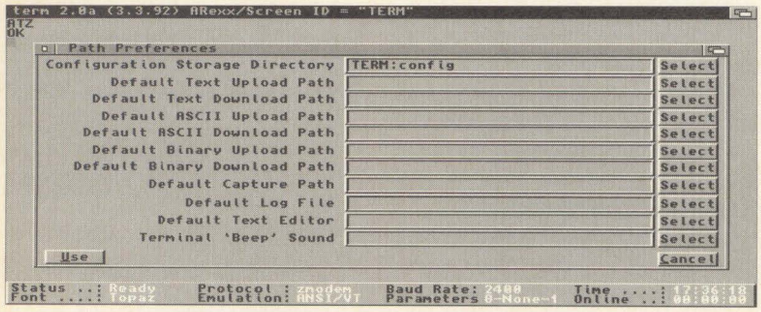
Unfortunately, *Term 2.0a* is not as good as the latest version of *NComm*, which is more of an all-round program. However, *Term* is good news for Amiga owners, showing that more programs are taking advantage of Kickstart and Workbench 2.0. It also costs less; all the author requests is a gift or a donation if you like the program. If you do own one of these machines, you could do worse – much worse – than look at this latest version of *Term*.

IN BRIEF

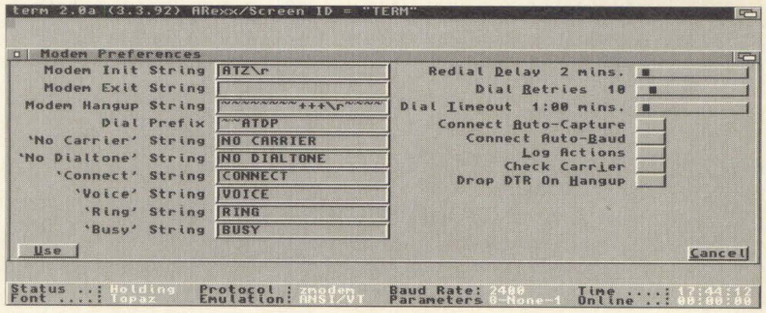
Type	**Shareware**
Registration fee	**Discretionary**
Author	**Olaf Barthel**
Requirements	**1Mb • Kickstart 2.0 Workbench 2.0**

Available from:
George Thompson Services, Cucumber Hall Farm, Cucumber Lane, Essendon, Herts AL9 6JB ☎ 0707 664654

AMIGA **87%**



It's possible to set up paths for all the types of files you may want *Term* to handle, including upload and download paths for different types of files, and its own configuration file



The key tool in comms is, of course, your modem and *Term* gives you a great deal of control over it, enabling you to set up its initialisation, hang-up and message parameters from the one screen

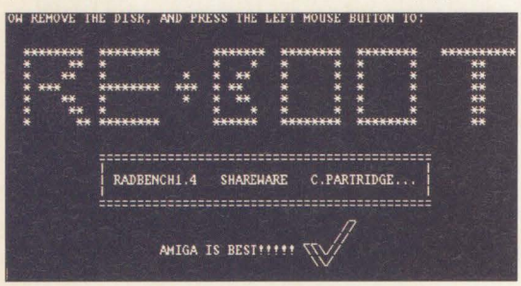
Radbench

This program has been designed to make using Workbench less unwieldy (in terms of disk swapping at least) and a little bit faster. How does it do this? It makes use of the Amiga's RAD: device which is a recoverable RAM disk that retains its contents even after you have rebooted the machine.

Basically what this does is treat a part of your computer's RAM as a disk drive, storing programs and files in that area; this makes it much faster to access than a disk drive. While most RAM disks are cleared when you reset your machine, if information is stored in RAD: then the it can be recovered. Cor, must be magic!

What *Radbench* actually does is copy the standard AmigaDOS commands and libraries from disk to RAD: which means that they are always there to speed things up when you access programs. Because these files can take up a lot of memory, *Radbench* can only be used by Amiga owners with at least 1Mb of memory, and C Partridge, the programmer, recommends you have at least 1.5Mb.

Another machine-related limitation of using *Radbench* is that Amigas equipped with Kickstart 1.2 have to reinstall the RAD: device using *Radbench* each time the computer reboots using the mount command, while 1.3 owners will be able to automatically call it up whenever the machine is reset.



After about one and a half minutes *Radbench* sets itself up, prompting you to reset the machine to use the RAD-based system

Installing *Radbench* takes around three minutes, while to reboot the machine once it's installed takes much less than a minute; much faster than it would normally. Setting up RAD: without *Radbench* isn't impossible, but to do this requires a bit of fiddling and isn't always easy to do if you don't know too much about the Amiga, its Command Line Interface (CLI) and the way it uses memory. *Radbench* makes this an automatic process; just turn on your machine and pop in the disk.

While this looks a lot like a normal Workbench screen – and really, it is – these files are contained in the Amiga's memory

While *Radbench* is without doubt the major feature of this disk, there are a number of other programs on it that add to its overall value. Without going into too much detail about what the programs are all about, there's: *SID*, the popular disk utility; *PicSaver*, a utility for saving Workbench screens as IFF pictures; *Diskcat*, a disk cataloguing program; *Shortcut*, which sets things up so that to load a program all you have to do is select its name from a pull-down menu; plus a few other bits and pieces.

Radbench does make using Workbench a great deal faster, and while it takes a little bit of time to set-up, this is nothing compared to how long it would take to do manually. If you've got the memory and use Workbench a lot take a look at *Radbench* to speed things up.

IN BRIEF

Type	Shareware
Registration fee	£5
Author	C Partridge
Requirements	1Mb
Disk number	1565

Available from:
1st Floor Offices, 2/8 Market Street, Wakefield WF1 1DH ☎ 0924 366982

AMIGA 84%

VDOS ProQueue

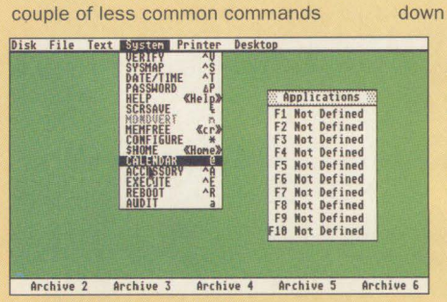
Essentially, *VDOS ProQueue* is a replacement desktop for the ST, working around the GEM operating system but providing over 50 disk, file and system utilities. Not only that, the program also features user-definable menus which enable you to run 101 programs just by clicking on a mouse button.

The disk commands are numerous, and include such necessary commands as Move Directory, Make Directory, Copy Directory and Format a disk. A couple of less common commands include Disk Free, to find out how much space is free on a disk, and Where? which is used to find out where a file is.

There are also a number of file-related commands that are worth mentioning. As well as the usual Delete, Copy and Move commands, there are also options to find out the size of a file, rename a file, or change the attributes of it.

When it comes to system commands, there are also a few worth mentioning. SysMap gives you a run-down on how your system is set up, including such elements as the amount of disk space and the system date. Calendar is a fully-featured calendar that can display information for any month or year. Accessory enables you to use desk accessories, although many of the utilities that would normally be desk accessories are built into *VDOS ProQueue*.

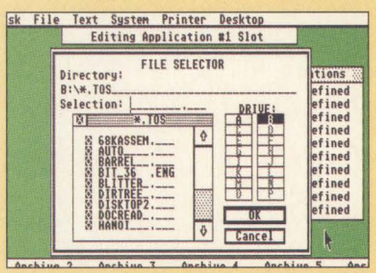
One of the program's main features is being able to run 101 different applications, each from the click of a mouse button. Setting this up is easy. All you need to do is click on the button you want to assign to the program while holding down the shift key, choose the type of the program you want to add – such as PRG, TOS, TTP, etc – and then select the program itself. There is a main Applications menu that is always on-screen, and another six 'archives' or menu lists that are accessible at the bottom of the screen that hold up to 15 programs each.



Many different tools and utilities are accessed easily via *VDOS ProQueue*'s pull-down menus

To use *VDOS ProQueue* to its full ability you would really need a hard disk which would have enough programs on it, presumably, to warrant using all 101 items in the menus. However, *VDOS ProQueue* is fully usable on a two floppy drive-based system, and this really would be a minimum configuration to be able to use it properly.

Paying the registration fee of $18 gets you a printed manual in a ring-bound folder which should make using the program a bit easier – the documentation that comes with the program is a bit sparse.



***VDOS ProQueue* can be set up to load 101 different programs at the click of a button**

Many of the tools included in *VDOS ProQueue* are as standard on the normal ST desktop or with the help of a few utilities. However the way they are packaged into one program, plus its ability to load other programs and the numerous options it has, makes *VDOS ProQueue* a high-quality product.

IN BRIEF

Type	Shareware
Author	John B Holder
Requirements	512K
Disk number	DMG28

Available from:
ST Club, 2 Broadway, Nottingham NG1 1PS ☎ 0602 410241

ST 88%

SHARESENSE

98 CHATSWORTH STREET, SUTTON-IN-ASHFIELD, NOTTS NG17 4GE (0623) 558057

DATABASE

DBSTEEL * Intreg multi function excellent docs {4}
FILE EXPRESS * Excellent program {2}
WAMPUM * Much like DBase 3 {3}
WYNFIELD * Mouse control Function key help
PCFILE v5.1 * Highly rated Database {3}
PE3 * Photography equipment Database
PPS1 * People, Picture and Sound Database
CARDX * Visual Rolodex and Database
DIF12 * Database import facility for ASCII Files
JBASE * Jokes, Gages Database
KS21 * Kwikstat Statistical Data Analysis {3}
MAGCAT * Magazine/Catalogue Database
LM42 * Label Master, Mailing List Database
MVLIB * Database on over 3000 videos
NIGHTCLB * Track nightclub members & data
VT130 * Video tape library database
PED205 * Track dog pedigrees & awards
SUSIE * Complete software library management

WORD PROCESSORS

CHIWRIE * A good WYSIWYG w/pros
GALAXY * Good with easy menus
KWIKRITE * Executive W/Processor
MULTIW * Multi-Lingual W/Processor
MULTIWORD * Popup electronic Thesaurus
MOREFORM * Custom form designer {2}
FORMGEN * Another form generator
FORMFILL * Formgen companion
BUSFORM * Business forms for Formgen
SFORM * Yet another form generator
PCTYPE * Popular Word Processor {4}
SWORDP * Emulates Word Perfect {4}
PCBROW * Search, cut, paste & find text {2}
NOVA * W/Processor with pull down menus
WP5TUT * Word Perfect V5 Tutor Easy!
MULTIEDIT * Very advanced text editor
WPK * Word Processor for kids
EXSPELL * Stand alone spell checker
MRE * Memory text editor
BUSLTR * Collection of over 600 Bus. letters
MAGIC * Black Magic Hypertext W/Pros {3}
JORI * On-Line Dictionary {2}
20-20 * Large text W/Proc for Lap-Tops

SPREADSHEETS

ASEASYAS * Excellent 123 Package
LEARN 123 * Lotus 123 Tutorial
INSTACALC * Pop-Up Spreadsheet
JOSSI * Job-Oriented Spreadsheet {3}
QUBECALC * Highly rated 3-D S/Sheet
PQLITE * Pro-Cube 3-D S/Sheet good reviews

FINANCE

BILLPOWER * Time keeping, accounting {3}
CHECKMATE * Home finance manager
CASHBOOK * Freeways Best {3}
FINMRG * Finance manager complete accounts
PAYROLL * Freeway add on {3}

**** DISK CATALOGUE ****
FORWARD TWO 1st CLASS STAMPS
STATING DISK SIZE FOR OUR LATEST
CATALOGUE WITH OVER 15,000 TITLES
(REFUNDED ON FIRST ORDER)

**** NOTICE ****
DUE TO THE SIZE OF OUR CATALOGUE
IF YOU REQUIRE THE CATALOGUE ON
360K DISKS A HARD DISK IS REQUIRED

ASSORTED GAMES

688 ATTACK SUB
CAPTAIN COMIC
COMMANDER KEEN
EGA TREK-STAR TREK
SHOOTING GALLERY
BLACKJACK
BASSTOUR Fishing game
GEMINI 3D Tank battle
PACMAN 3D
EGA ARKANOIDS
BLOCKOUT Tetris game
FLYSWAT Space invaders
KAMIKASI Shoot-em up
HDHELI Helicopter sim
FORD SIMULATOR
FROGGER
ENTRAP Ball & bat style
MARIO Mario-bros style
NINJA Fight the Ninja!
PCDARTS
PCPOOL Pool & 8 Ball
SEAWOLF Submarine Cm
STARGOOSE
WIZARD Pinball game
TRON light cycles {3}
WHEEL OF FORTUNE
XWING Battleship game
CHESS Turbo ver good!
DOMINOES
CHECKERS
SORRY
MONOPOLY
MAHJONGG Tile game
BACKGAMMON
NOUGHTS & CROSSES
BLACKJACK CGA
POKER
7 CARD STUD POKER
F16 Interceptor game
JETPILOT
TUNE Name that tune
PCTENNIS
TRIVIAL PURSUIT
GOLF2 * Computer golf

DOS UTILITIES

PKZ110 * PK Ware's ZIP archiver the best!
LHARC * Archiver for LHZ files
ARJ * New archiver more powerful than PK ZIP
SHEZ * Dos front end for Pk ZIP
AUTOMENU * A Superb menuing system
POWERMENU * Brown Bags excellent menu
ACCESS * Pass word protect your hard drive
SCAN88 * MacFee's latest virus checker very good
STD * STD tel no area code locator
JLOG * Keep track of computer usage
TUTORDOS * Very good Dos teacher
ONEPASS * Disk Duplicator
BENCH * AT Bench marking program {4}
RUBICON * Full feature Desk Top Publisher
4DOS * Highly acclaimed Dos command add-to
DSKSPEED * Check floppy disk speed
HYPERDISK * A very fast disk cache
EM87 * Co-Processor emulator for the 8087
CMOS * Save CMOS settings for easy set up VG!
ADDRAM * Use EMS 4.0 to expand 640k barrier
EMM4 * Extended memory driver for
Above Board
MM * Memory Master improve your memory table
1200 * Format a 1.2K disk to 1.5K
LIGHT * Speed up your drives
WORLD * 3D globe rotating in space
DAZI * Amazing VGA Demo
FMT" * Format multiple drives
GALLERY * Menu system that uses icons

ALL PROGRAMS
ONLY **99**p Each

MINIMUM ORDER 5 PROGRAMS
POST & PACKING £1.95
NO SURCHARGE FOR 3.5" DISKS
OVERSEAS ORDERS ADD £2.95

WINDOWS

ICONS * 3,000 every icon you will ever need!
APORIA * Windows shell
ADDPROG * Graphics demo of how to add apro
ALMANAC * Calendar for windows
ACTIVE LIFE * Scheduler, Calendar & more
BIGDESK * Create a large virtual desktop
BIORHYTHM * Biorhythm chart maker
CASE * Audio cassette inlay card printer, nice
EZFORM * FormMaster, WYSIWYG forms
FMCENTRAL * Floppy disk formatter
FMSOUND * Soundblaster driver for windows
FONTS * 20 of the best hand picked {3}
{ATM compatible also available in Truetype format}
GIF"BMP * Convert GIF's to BMP's
GIF"ICON * Convert GIF's to ICON's
GRABIT * Screen grabber
FPWIN * Fractal paint & design program
FONTGHY * View and print Windows 3 fonts
SMARTAAC * Accounts package for windows
METZ UTIL * Phone dialer, memory status, phone book, desktop manager, task manager
WIN-INI * Win.ini file editor
ICONMAG * Supposedly the best icon manager
LENORD * Drawing program with many features
ORGANISE * Sort of Filo Fax for windows
PARWIN * Genealogy/Family tree charting
PIFHLP * Pif Helper
SMITH * Home/Business accounts program
ZMANGER * Archive manager for windows
SCRPEACE * Screen Peace screen saver, nice
WSCAN * MacFee's virus scan for windows
YOURWAY * Excellent personal info manager

WINDOWS GAMES

AFORCE * Space shoot-em up
ATMOID * Asteroid games
BG6 * Colour backgammon
BLCE12 * Block breaker game
CHOMP * Pacman style game
CHOPTER * Helicopter game
JEWEL * Jewel thief, steal jewels, avoid guards
LUNAR * Lunar lander simulation
KLOTZ * Tetris style game
LIFE * The game of life
MAHJONNG * Tile game
MINES * Avoid the minefield, pretty good
MRMIND * Mastermind game
PEGGED * Fun peg game
PUZZLE * Slide puzzle, uses .BMP pictures
SPACEW * Spacewalls shoot-em-up game
WINCHK * Checkers game
WINCHSS * Windows chess
WINHNG * Hangman game
WINSLOT * Slot machine game
WINJACK * Fast paced Blackjack card game
WWAR * Wormwars centipede style game
ZONEONE * Risk style game
YACHT * Yatze type dice game

NOTICE

THIS SHAREWARE IS FOR EVALUATION PURPOSES ONLY. PAYMENT IS DUE TO THE AUTHOR IF FOUND USEFUL.
**** TAKE NOTE ****
REMEMBER TO INCLUDE YOUR NAME, ADDRESS AND DISK SIZE WHEN ORDERING PROGRAMS.

Educational Software.....

Over 70 of the best titles from tots to teens

Any Pack £14.99

WINDOWS FONT PACK

A MOST DETAILED PERSONAL SELECTION OF UNUSUAL/ELEGANT FONTS
TOTAL OF 100
(Also available in Truetype format)

NEW PC USER PACK

New PC user? Then this pack is for you....!!
WORD PROCESSOR/DATABASE/COMMS/GAMES UTILITIES/DOS-UTILS/WINDOWS/TUTORIALS AND MANY MANY MORE.....
A TOTAL OF 100 PROGRAMS
SAVE OVER £75 ON NORMAL PRICES

GIF PACK

SOME OF THE BEST GIF FILES AVAILABLE FROM SPACE TO SIMPSONS
OVER 50 PICTURES
(Complete with viewers & editors)

PCX. CLIP-ART PACK

OVER 10MB OF PCX FILES SUITABLE FOR MOST DTP PROGRAMS

BUSINESS STARTER PACK

If you are running your business and thinking of using a Personal Computer then these are the programs for you....From full accounting to invoicing to stock control. All you'll ever need in one PD package.....

WINDOWS PACK

AN EXCELLENT PACK TO ADD ON UTILITIES FOR WINDOWS INC... ICONS/FILE MANAGER/ FONTS/IMAGE VIEWER GAMES
100 PROGRAMS

GAMES PACK A

50 OF THE BEST ARCADE GAMES

GAMES PACK B

50 OF THE BEST BOARD & CARD GAMES

GAMES PACK C

50 OF THE BEST ADVENTURE GAMES

GAMES PACK D

50 OF THE BEST ASSORTED GAMES

IF YOU HAVE A SPECIAL INTEREST LET US MAKE UP A PACK FOR YOU???? CALL FOR DETAILS {0623} 558057

SOUNDBLASTER PACK

A COLLECTION OF UTILS AD ADD-ONS TO ENHANCE YOUR SOUND BOARD.... MOD FILES/VOC FILES/SOUNDBLASTER DIGEST MAGAZINE/ROL PLAYER
A TOTAL OF OVER 10MB

DISKS

3.5" FUJITSU UNBRANDED HIGH DENSITY
BOXES OF 100
CERTIFIED ERROR FREE WITH LABELS
Call for availability **£45.00** INC P/P

DIAGNOSTICS/ UTILS PACK

AN IDEAL PACK FOR THE MORE EXPERIENCED USER INCLUDING.....
MEMORY MANAGERS/FILE MANAGERS/FORMATTERS/ SPEED CHECKERS
A TOTAL OF 50 PROGRAMS

GENERAL PACK

GENEALOGY/DIETING/ COOKING/HEALTH/ QUIT SMOKING/ COLLECTING AND MANY MANY MORE
OVER 75 PROGRAMS

MEMORY

FUJITSU 1MB SIMMS 70NSC
Call for availability **£25.00** INC P/P

LUCKY-DIP PACK

A LITTLE BIT OF SOMETHING FOR EVERYONE
100 PROGRAMS

OUR LATEST CATALOGUE IS DESPATCHED WITH ALL ORDERS

SAVE £££££££...BUY OUR VALU-PACKS AT INCREDIBLE SAVINGS

£14.99
EACH PACK INC P/P

ALL ORDERS ARE SHIPPED IN 24HRS BY FIRST CLASS POST

SHARESENSE

ProbeST

Have you ever wondered how those amazing sounds and graphical effects are achieved in games and demos? If you have then this program should be able to help you find out.

ProbeST is a clever utility that enables you to examine your ST's memory for music, graphics and other forms of data that you may want to use in your own productions. To do this requires some knowledge of the ST's memory and how it is mapped, but if you're interested in seeing how this programming is achieved, then *ProbeST* might help.

From the program's main screen you can open six main menus, each of which accesses related functions. Here's a list of what they let you do:

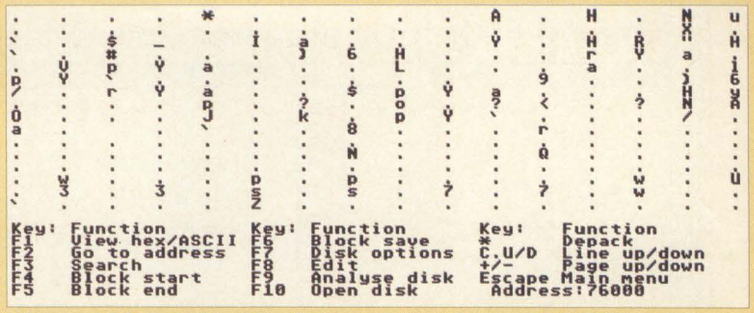
- Search Music – enables you to search the ST's memory for music, or to be more specific, music that uses chip sounds and not samples.
- Search Graphics – lets you search the computer's memory for graphic screens, adjusting such elements as the number of bitplanes used and the colour palette to ensure that you get a decent picture before you try saving it.
- Disk Operations – do such things as load and save files, examine sectors on a disk, and analyse the way the disk is set up.
- Other Searches – from this one you can try and discover cheat modes in games although in a haphazard way; it searches through memory for text that may be used in the game. The other option in this menu is to search memory for executable files.
- Disk/Memory Editor – enables you to view and search through the data in memory or on a disk, saving parts of it for future examination.
- Virus Protector – is a very basic form of virus checker, which only checks bootblocks.

ProbeST is a multi-featured program that enables you to examine most aspects of programs on the ST, although you do need to know what you're doing. While it may be able to help you look for graphics and music in memory, once you find them you have to know what to do with them. This is one of the benefits you get when you register the program: the author will give you some hints on how to use the music you find in your own programs as well as other general tips, plus free updates and a few other things.

If you're interested in seeing how your demos tick, *ProbeST* is a handy and relatively powerful program that does work that would previously have needed several utilities.

```
        WELCOME TO ProbeST V1.00
Key:    Function:
F1      Search Music
F2      Search Graphics
F3      Disk Operations
F4      Other Searches
F5      Disk/Memory Editor
F6      About ProbeST V1.00
F7      Options
F8      Virus Protector
Esc     Quit
```

***ProbeST*'s main screen confronts you when it loads, immediately giving some idea of what it is capable of**



While much of this looks like random text scattered across the screen, it is, in fact, a representation of the computer's memory, which you can examine and edit at will

IN BRIEF

Type	Shareware
Registration fee	£5
Author	Unknown
Requirements	512
Available from	Merlin, 11 Grange Close, Minchinhampton, Glos GL3 9DF ☎ 0453 882793

ST 78%

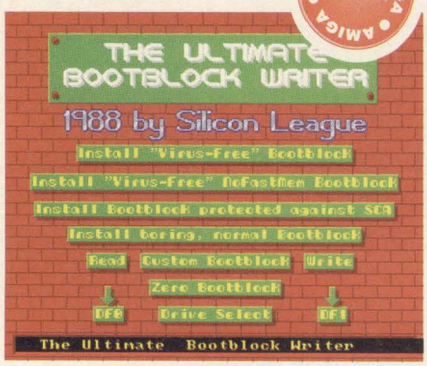
Ultimate Bootblock Collection

Want to know what you can do with that 1,024 bytes of space on the bootblock of your disks? This disk may help you to find out. It's a collection of 43 bootblock-related programs.

So now you can do such things as make your monitor display a colour when a disk is inserted in the disk drive, or create your own, admittedly rather primitive, scrolling messages and menu screens. A couple of the tools enable you to run programs directly from the bootblock so that when you insert a disk, the program will load automatically. This does require some programming knowledge, however.

Unfortunately some of the programs don't work as they are supposed to; in fact, some of them don't work at all. Also, people with 500 Pluses could well have problems using some of the bootblocks created with many of the tools.

Have a look at this disk if you're interested in seeing what can be done with bootblocks. But don't expect too much, especially if you don't know too much about the Amiga.

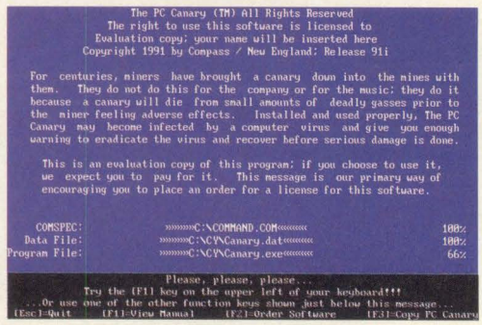


OK, it looks good, but I wonder if this one works...?

IN BRIEF

Type	PD
Author	Various
Requirements	512K
Disk Number	1655
Available from	17-Bit Software, 1st Floor Offices, 2/8 Market Street, Wakefield WF1 1DH % 0924 366982

AMIGA 46%


The PC Canary (TM) All Rights Reserved
The right to use this software is licensed to
Evaluation copy: your name will be inserted here
Copyright 1991 by Compass / New England: Release 91i
For centuries, miners have brought a canary down into the mines with them. They do not do this for the company or for the music: they do it because a canary will die from small amounts of deadly gasses prior to the miner feeling adverse effects. Installed and used properly, The PC Canary may become infected by a computer virus and give you enough warning to eradicate the virus and recover before serious damage is done.
This is an evaluation copy of this program: if you choose to use it, we expect you to pay for it. This message is our primary way of encouraging you to place an order for a license for this software.
COMSPEC: »»»»»»C:\COMMAND.COM«««««« 100%
Data File: »»»»»»C:\CV\Canary.dat«««««« 100%
Program File: »»»»»»C:\CV\Canary.exe«««««« 66%
Please, please, please...
Try the (F1) key on the upper left of your keyboard!!!
...Or use one of the other function keys shown just below this message...
(Esc)=Quit (F1)=View Manual (F2)=Order Software (F3)=Copy PC Canary

The only screen you see when you run *Canary*. It examines just three files before returning you to normal operations

Canary

Unlike nearly every other virus killer which hunts and kills viruses on the PC, *Canary* takes a different approach: it doesn't kill or prevent them but rather detects whether they are present.

Once *Canary* is installed, so the documentation claims, it will be one of the first programs to be infected by a virus, giving you enough warning before the virus can do any damage and giving you the chance to get rid of the dratted thing (though ominously the programmers don't promise that this is always the case).

The program works by scanning its own files for viruses, so in theory *Canary* can detect new viruses as it scans for the effect a virus has on the files rather than specific virus types.

Canary should be used in combination with other virus checking and killing utilities, rather than used alone. It is limited in that it can't detect bootblock viruses, but it should be able to detect link viruses as long as either its program or data file is infected. Whether this will happen before other files are infected you can't be certain, but *Canary* can be used as yet another weapon against those dangerous binary bacteria we call viruses.

IN BRIEF

Type	Shareware
Registration fee	£19.95
Author	Compass/New England
Requirements	512K
Available from	Benetech Systems, 21 Loughborough Road, Leicester LE4 5LJ ☎ 0533 611231

PC 67%

t. from
27

The best of the rest • The best of the rest • The best of the rest

What do you mean you haven't bought every issue of *Public Domain*? There's so much you've missed. If you don't believe us just check out these excellent high-scoring utilities from our first six issues – and be so impressed you'll want to order loads of back issues (page 97 – plug, plug!)

PC

❶ LHA Utilities 2.12 — Issue 2 — 95%

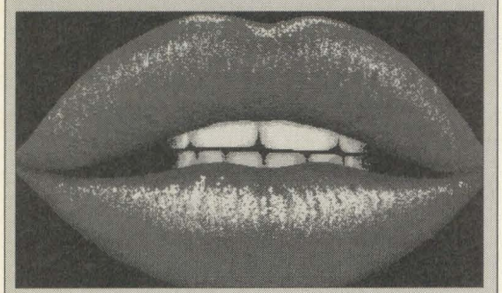
Software Services Shareware, 25 Maywood, Brynna CF7 9PZ

Archiving and dearchiving files has never been easier with this collection of powerful tools, guaranteed to compact large numbers of files into a much smaller single file.

❷ Graphic Workshop 2.56 — Issue 6 — 89%

PC Independent User Group, 87 High Street, Tonbridge, Kent ☎ 0732 771512

Not just useful for converting a wide range of graphics formats this program also enables you to manipulate images in a variety of weird and wonderful ways.



***Graphic Workshop*: converting and manipulating images in style**

❸ Shareware Selection — Issue 1 — 88%

Benetech Systems, 21 Loughborough Road, Leicester ☎ 0533 611231

23 disks containing a variety of programs, including a number of utilities that handle such things as disk copying, a keyboard accelerator plus a few other goodies.

❹ Searchlight — Issue 2 — 88%

Fantasia Shareware, PO Box 1231, Clutton, Bristol ☎ 0761 453716

One of the best bulletin board system (BBS) packages available anywhere, and this cut-down trial version is available as shareware!

❺ Winbatch — Issue 1 — 85%

Omicron Systems Ltd, 45 Blenheim Crescent, Leigh-on-Sea, Essex

A handy utility that enables you to write your own batch files to control Microsoft Windows by using a powerful batch file control language.

❻ ASM 14 & CPU 24 — Issue 1 — 85%

Fantasia Shareware, PO Box 1231, Clutton, Bristol ☎ 0761 453716

Can't find the program you want? Why not write your own? These two programs work together to provide an entry-level introduction to writing PC programs in assembly. You write the programs using *ASM 14* and then run them within *CPU 24*.

❼ Quick Titles — Issue 6 — 84%

Testware, 46 The Avenue, Harrogate, North Yorks ☎ 0423 880471

Want to design you own welcome screen? Or perhaps a message to insert into one of your programs. *Quick Titles* is the easy way to write text in massive fonts.

❽ Scout — Issue 4 — 84%

Public Domain and Shareware Library, Winscombe House, Beacon Road, Crowborough, Sussex TN6 1UL ☎ 0892 663298

A compilation packed with TSR (Terminate and Stay Resident programs) that can be recalled at the press of a key. Everything from disk formatting to executing programs.

❾ Rock Utilities — Issue 6 — 83%

PDSL Winscombe House, Beacon Road, Crowborough ☎ 0892 663298

31 utilities crammed on to two disks, most concerned with updating or extending standard DOS commands to make them either easier or more powerful.

❿ Printer Dolly — Issue 4 — 83%

Softcell Services, 25 Maywood, Brynna, Pontyclun ☎ 0443 238630

Gives you control of your printer no matter what program is running. Supports Hewlett Packard Deskjet and Laserjet, Epson LQ series and Cannon BJ10e bubble jet printers.

ST

❶ GFA Basic 2 — Issue 1 — 95%

Riverdene PDL, 30a School Road, Tilehurst, Reading ☎ 0734 452416

Once commercially available, this is a fully working version of the GFA Basic programming language, one of the best versions of BASIC available for the ST.

❷ Empire Soundtracker — Issue 1 — 91%

Riverdene PDL, 30a School Road, Tilehurst, Reading ☎ 0734 452416

Now you can create music along the lines of the tunes found in games and demos – *Empire Soundtracker* enables you to sequence four channels of samples to make the music, even in stereo if you're lucky enough to have an STE.

❸ Hitchhiker's Utilities Disk — Issue 4 — 86%

Office PD Choice, Suite 14, Avon House, Town Centre, Cumbernauld G67 1EJ

A compilation of utilities which do everything from custom disk formatting to disk cataloguing and lots more besides. Very powerful and well worth a look.

❹ The Duplicator — Issue 4 — 85%

Softcell Services Shareware, 25 Maywood, Brynna, Pontyclun, CF7 9PZ ☎ 0443 238630

A copying program that copies complete disks in one go as opposed to file-by-file. A couple of handy extra features puts this piece of software ahead of the pack.

❺ Gemini — Issue 2 — 85%

Arrow PD, 6 Kents Orchard, Perry Street, South Chard, Somerset TA20 2QB

One of the most powerful and attractive desktops for the ST that replaces the normal GEM operating system display and makes the computer more friendly to use.

❻ Elf-Boot — Issue 6 — 84%

ST Club, 2 Broadway, Nottingham NG1 1PS ☎ 0602 410241

Customise your ST so that it boots-up just the way that you want it to.

❼ Video Master — Issue 5 — 84%

South West Software, PO Box 562, Wimborne, Dorset BH21 2YD

Use this Budgie program to create your own video titles using simple Amiga text files, re-sizing them to create special effects.

❽ Runner — Issue 6 — 83%

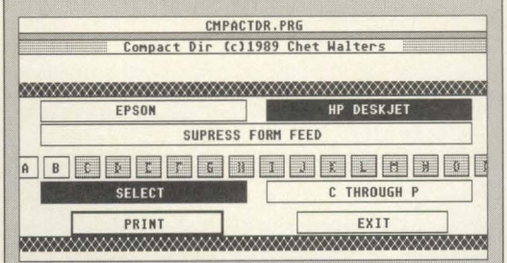
ST Club, 2 Broadway, Nottingham NG1 1PS ☎ 0602 410241

This program adds menus to your ST desktop so that instead of looking at that familiar lime green screen, you have a picture plus a menu selector.

❾ Deskjet Utilities — Issue 1 — 82%

Arrow PD, 6 Kents Orchard, Perry Street, South Chard, Somerset TA20 2QB

If you have a Hewlett Packard Deskjet printer then this is a disk you can't afford to be without – it contains 16 useful tools to use with the peripheral, including an address labeller and a *Degas* screen dump tool.



No DeskJet owner should be without *DeskJet Utilities*

❿ Double Click Utilities — Issue 3 — 82%

Floppyshop, 45 Provst Graham Avenue, Hazelhead, Aberdeen

A selection of small-but-useful utilities that perform such varied functions as magnify the screen, put the mouse pointer in the centre of the screen and display disk information. Most are unusual and all are handy.

Amiga

❶ MessySID — Issue 3 — 93%

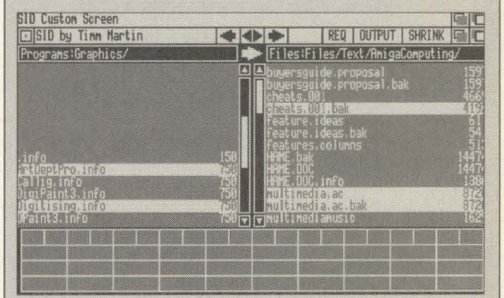
Strictly PD, 11 York Place, Bristol BS1 5UT

A combination of *SID* and *MessyDOS*, this essential tool not only enables you to transfer files to and from Amiga disks, but to PC disks as well.

❷ SID 1.6 — Issue 1 — 92%

George Thompson Services Ltd, Cucumber Hall Farm, Cucumber Lane, Essendon, Herts AL9 6JB ☎ 0707 664654

Of all the utilities available for the Amiga, *SID* is an essential program to have, as it makes all file operations quick and easy to perform.



***SID 1.6*: so good we can't wait for the update**

❸ Super C — Issue 2 — 88%

Essex Computer Systems, Freepost, Basildon, Essex SS16 4BR

CLI utilities galore are to be found on this disk. A large number of tools that do things like displaying IFF images, checking for viruses and speeding up the mouse pointer.

❹ ImageLab — Issue 4 — 87%

Ed Lib, Scotland Farm,Stockwood Road, Brislington, Bristol

If you've created a picture in a paint package and it's not quite right then *ImageLab* is a powerful editing tool that enables you to make the alterations you want.

❺ Windows Bench — Issue 3 — 86%

NBS, 1 Chain Lane, Newport, Isle of Wight PO30 5QA ☎ 0983 529594

Not a total replacement for the Amiga's Workbench display, this disk makes it look like Windows on the PC, as well as providing a number of crucial utilities, including *SID*.

❻ DeafLab — Issue 2 — 85%

George Thompson Services Ltd, Cucumber Hall Farm, Cucumber Lane, Essendon, Herts AL9 6JB ☎ 0707 664654

A program for the deaf or hard of hearing, this program enables you to convert text messages to sign language, and very good it is, too.

❼ VideoLab — Issue 6 — 84%

Déjà Vu, 25 Park Road, Wigan, Lancs WN6 7AA ☎ 0942 495261

If you make your own home movies on video, or just want to add a few titles to the recording of your cat giving birth, this program produces smart results and is easy to use.

❽ Sound Studio — Issue 4 — 84%

AmigaNuts United, 169 Dale Valley Road, Hollybrook, Southhampton

If your samples don't sound quite the way you want them to, then you can use *Sound Studio* to customise them to your specifications.

❾ DOS-Manager — Issue 6 — 83%

AmigaNuts United, 169 Dale Valley Road, Hollybrook, Southampton

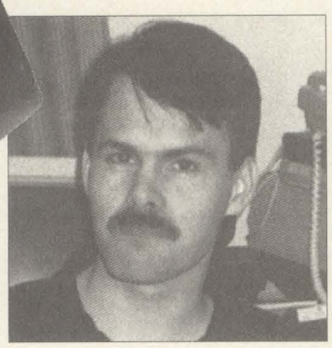
This highly-friendly program enables you to convert animations between different standards, all from an easy-to-use front-end.

❿ AnimBridge — Issue 5 — 83%

17 Bit Software, 2/8 Market Street, Wakefield WF1 1DH ☎ 0924 366982

This highly-friendly program enables you to convert animations between different standards, all from an easy-to-use front-end.

Get the message

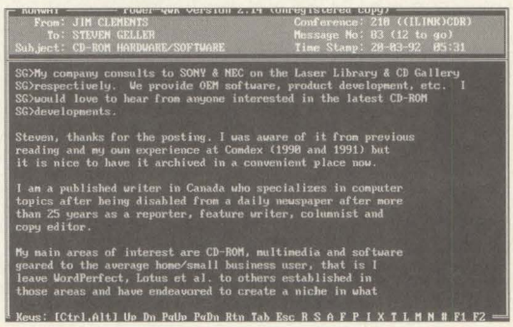


Technology has always been blamed for making the world smaller, but nowhere is this more evident than with mail networks. In this month's regular comms column Peter Wright tells you how you can send electronic mail to the other side of the world for the cost of a local telephone call...

Bulletin boards are the perfect media for computer enthusiasts to get in touch and discuss a multitude of topics. However, after a while certain limitations become apparent. For instance, a board may only have a couple of hundred users and you may need to reach a far wider audience. What if you require some highly technical information which no-one on the board possesses? For many, when they reach this point it's time to grab the credit card and become a member of one of the more popular commercial services such as Compuserve or CIX. However, there are cheaper alternatives, and where else but in the public domain?

International mail networks began to spring up well over ten years ago, initially for the purpose of sending messages between a small number of friendly bulletin boards. However in the years that passed some of these have grown to gargantuan proportions; two in particular – FidoNet and ILink – are now widely available in the UK.

Like their commercial counterparts they are a goldmine of technical and general information and are regularly frequented by some very famous names in terms of both programmers and hardware manufacturers. Unlike their commercial counterparts, however, they are completely free, bar the phone bill of course!


From: JIM CLEMENTS
Conference: 210 ((ILINK)CDR)
To: STEVEN GELLER
Message No: 83 (12 to go)
Subject: CD-ROM HARDWARE/SOFTWARE
Time Stamp: 20-03-92 05:31
SG>My company consults to SONY & NEC on the Laser Library & CD Gallery
SG>respectively. We provide OEM software, product development, etc. I
SG>would love to hear from anyone interested in the latest CD-ROM
SG>developments.
Steven, thanks for the posting. I was aware of it from previous reading and my own experience at Comdex (1990 and 1991) but it is nice to have it archived in a convenient place now.
I am a published writer in Canada who specializes in computer topics after being disabled from a daily newspaper after more than 25 years as a reporter, feature writer, columnist and copy editor.
My main areas of interest are CD-ROM, multimedia and software geared to the average home/small business user, that is I leave WordPerfect, Lotus et al. to others established in those areas and have endeavored to create a niche in what
Keys: [Ctrl,Alt] Up Dn PgUp PgDn Rtn Tab Esc R S A F P I X T L M N # F1 F2

Innovative areas, such as the development of CD-ROM technology, are discussed regularly on both ILink and Fido

A small world

The way mail networks function is ingeniously simple. Dotted around a network are bulletin boards which act as central collection points for electronic mail – these are known as hubs. At set times throughout the day (or more commonly, night) smaller boards (nodes) ring the hubs to pass on mail they have collected, and download any new mail from them. The hubs also call each other, thus passing mail between different towns or counties. In some countries, such as New Zealand, a single bulletin board transfers these networked messages and files to other countries, collecting them from the local boards.

With international systems such as Fido and ILink this is taken one step further by allowing users from different countries to get in touch. Fido in particular claims to have nodes in well over 80 per cent of all the countries in the world. It's a claim that's easy to believe. ILink is rather more modest and is heavily biased towards English speaking countries such as America and the UK. Although both systems have a great deal in common it's worth looking at them as separate entities.

ILink

ILink is a very American system which has only recently (within the last couple of years) begun to make inroads into the UK. The basic premise of the network was to act as a source of technical information for all its users with very specific mail areas, called conferences, for users to get in touch and swap information.

Today, however, the conferences available on the system span far more than machine specific topics. One of the more popular areas of ILink is its *Star Trek* area. Where else do you know of that hundreds of fans can get together to discuss Klingon battle tactics or analyse the latest managerial decisions of Jean Luc Picard (except at a Sci-Fi convention, that is)? More technical users are catered for with other very popular areas covering C programming, viruses and innovative issues such as CD-ROM development. There is also a general chat area, a section for kids and a rather crude joke conference.

"The beauty of public domain mail networks is that they are run by enthusiasts for enthusiasts."

A major shortfall, for UK users anyway, is the incredible bias towards PC users. The Amiga sections are beginning to take off but ST users have very little information for their machine. That said, the beauty of mail networks is that they are run by enthusiasts for enthusiasts! If enough people want to see a new section on the network then it will probably appear sooner or later.

A minor problem with ILink is that it cannot carry private messages between users. All messages must be public and readable by all. This isn't really too much of a hassle; if you really

Smaller networks for that more personal touch

By comparison to the almost monolithic Fido and ILink, The Net and Wildnet are both fairly small, and relatively new. A common complaint levelled at networks such as Fido is that because of their vast size the user can find them a little cold and, in some instances, a little hostile.

The Net is a UK-only network set up by one David Chester. The basic premise in setting up the network was to have a friendly system which would convey an informal Bulletin Board-style atmosphere. With only around 30 nodes in the UK at the moment it achieves this and is catching on fast.

Wildnet is considerably larger than The Net but is international. Predominantly US-based it is beginning to find its way over here and in Europe and is commonly found on boards supporting The Net.

Anyone interested in using either could do worse than ring David's Abacus BBS on 0483 755099.

```
114) * (ILINK) Viruses              115)   (ILINK) DSZ_OMEN
-PAUSE- [£-£], Select [a]ll, [D]eselect all, [H]elp, [S]top?
116)   (ILINK) Transatlantic        117)   (ILINK) Comedy
118)   (ILINK) PKware               119) * (ILINK) QEdit_Support
120) * (ILINK) Shareware            121)   (ILINK) Amateur_Radio
122)   (ILINK) ILink_Users          123)   (ILINK) Technical
124)   (ILINK) Fantasy_&_SF         125)   (ILINK) ChitChat
126)   (ILINK) Writers              127)   (ILINK) Wordplay
128)   (ILINK) 4DOS_Support        129) * (ILINK) Amiga_Users
130)   (ILINK) Database            131)   (ILINK) Star_Trek
132)   (ILINK) Eurochat            133)   (ILINK) Media
134)   (ILINK) Hard_Disks          135)   (ILINK) Laptops
136)   (ILINK) Dos_Tips            137)   (ILINK) Telix_Support
138)   (ILINK) Travel              139)   (ILINK) Gaming
140)   (ILINK) Tags'R'Us           141)   (ILINK) msport
142)   (ILINK) TeleCommute         143)   (ILINK) hayes
144)   (ILINK) networks            145)   (ILINK) Rock_And_Roll
146)   (ILINK) cars                147) * (ILINK) unix
148)   (ILINK) Pets                150)   (ILINK) windows
151)   (ILINK) cadd                152)   (ILINK) Desktop
153)   (ILINK) ILink-News          154)   (ILINK) Telecom
155)   (ILINK) BBS-ADS             156)   (ILINK) Graphics
157)   (ILINK) Word-Perfect        158)   (ILINK) Hardware
159)   (ILINK) Spreadsheets        160)   (ILINK) Assembly
-PAUSE- [£-£], Select [a]ll, [D]eselect all, [H]elp, [S]top?
```

Vast lists of topics are available on the boards from which users can download files which interest them, and the only cost is the phone bill

```
   To: MIKE WELLS                Message #:  1168
 From: JAMIE COOPER              Submitted:  23 Mar 92  21:27:00  RUNWAY
Subject: Re: TS, IF                Status:  Public                37 of 60
eceived: No                         Group:  FIDOSTrek (27)
                                                          *R E A D*
JAMIE COOPER HELPLINE CAN I HELP YOU?

Yes Mike, heres what you wanted to know:

Time Squared.

Rescuing a disabled shuttlecraft, Picard finds himself face to face with a
double of himself, a Captain Picard fro six hours in the future.  Becomeing
trapped in an energy whirlpool, Picard desperatly tries tounlock the secrets
of his doubles tortured mind.

THe ICarus Factor.

Offered the captaincy of the USS Aries Riker awaits a special breifing on
the ships mission..  But the specialist beamed aboard from Starbase
Montgommery is his father Kyle who he has not spoken to in 15 yrs.

Hope that clears things up!
   Use Directional Keys to move around, or
   Use <ESC> <ENTER> or Mouse to Continue...   Wednesday  25/03/92  10:14:06 pm
```

***Star Trek* is big on both networks. Here a Trekkie discusses some of his favourite moments using the FidoNet system to get his views noticed by as many people as possible**

need to communicate with a specific user you can always ring them normally on the telephone or log directly on to the board that they use.

FidoNet

In comparison with ILink, Fido is a real dinosaur, in terms of both size and age. Where ILink is still in its youth Fido was formed right at the start of the 80s. Like ILink it has a vast number of mail conferences for users to discuss subjects ranging from dreams, through tropical fish and Grand Prix racing, right up to Unix programming.

Because of its age Fido is incredibly widespread. Not only can users communicate with other Fido bulletin boards, but there are also

"Fido claims to have nodes – that is affiliated bulletin boards – in over 80 per cent of countries in the world."

links into the academic networks of the world, run by Universities, as well as links to the commercial international system, Compuserve.

Specific machine users are extremely well catered for with sections for machines ranging from the Acorn Electron right up to the Amiga, ST and PC. The 16-bit areas for the ST and Amiga in particular have grown so much over the past few years that they have been broken down into sub-topics, such as Amiga Programmers, Amiga Users, ST Programmers, etc.

Fido is the more serious of the two networks. A famous aspect of Fido is something called the Fido-Flame, received by anyone posting incorrect information into a conference. It usually consists of a number of replies (which can often be over 100) all telling you how grossly wrong you are and how right they are. A common problem with Fido is the number of almost religious computer fanatics that use it; try posting a message proclaiming the virtues of the Amiga in the ST section, then sit back and wait for the explosion!

Owing to its more serious nature Fido does have provision for private messages. Every board in the network has a unique FidoNet address. Private mail can be sent to specific users of a board by simply giving their address to the board you use, along with their name, and voila, in a couple of days Joe Bloggs in New York receives a private message from yourself.

Another major feature of Fido, although not widely available, is the File Request, or Freq. Some boards carry lists of files available on other boards with which they are on good terms. For a small fee (although some boards don't charge) a user can request a file from the other board. When mail is passed between the boards the files requested are also passed and the requesting user is notified when his or her file is ready. This feature is not yet widely available in the UK, mainly because of the cost involved for the poor sysops who have to foot the phone bill.

```
Files in area [75] - [Fidonet Files]

  1  POLICY4.LZH        29k  Fidonet Policy document. A must for all fidonet n...
  2  NODELIST.LZH       60k  Always the Latest Nodelist
  3  NODEDIFF.LZH       27k  Always the latest Nodediff
  4  253ECHO.L33        10k  list of available echos in the 253 network
  5  NODECNV1.lha       10k  NodeConv - Converts A Nodelist Into Readable!
  6  FSC-0059.A01       36k  Newsgroup Interchange within FidoNet
  7  FSC-0060.A01       11k  Calculation and Usage of CRC's  F van der Loos
  8  FSC-0061.A01        5k  Proposed Guidelines for the FileBone, E VanRiper
  9  FTSCPROD.M46       13k  FTSC product code list (09-Mar-1992)
 11  FNEWS911.LZH       11k  Fidonet news File 911
 12  NODEDIFF.L80       40k  Nodediff for weekending 28/3/92
 13  FNEWS912.LZH       20k  Fidonet News File 912
 14  NODEDIFF.L87       40k  Nodediff For weekending 28/3/92
 15  253ECP04.LZH       17k  Net 253 News Letter
 16  FNEWS912.LZH       28k  FidoNet news File 912
 17  FNEWS913.LZH       13k  Fidonet news File 913
 18  NODEDIFF.L94       40k  Nodediff for weekending 3/4/92
 19  NODEDIFF.L01       57k  Nodediff For weekending 10/4/92
 20  FNEWS914.LZH       14k  FidoNet news File 914

[D] Download      [F] File list       [A] Change areas    [S] Change Sig
[N] New scan      [=] Global list     [P] Private area    [T] Transfer File
[O] Edit signature[R] Read File       [I] View Archive    [^] Goto msg area
[E] Send message  [M] Main menu       [G] Goodbye         [H] Help
[?] Display menu  [RET] Next File

Area: [75] [Fidonet Files] [0/1-20]
ANSI-BBS 2.0          2400:8N1:IBM                  10:51 88:88
```

Most boards that are connected to Fidonet also receive regular newsletters and information about the running of the network

Which network for you?

By their very nature, international mail networks are not the place to be for the totally green comms user. The vast number of messages available for reading demands that the user both possesses and knows how to use an off-line mail reader as well as how to configure their mail reading preferences on the bulletin board of their choice. Having said that the sysops are usually more than willing to help out any novices.

As for which net is best, it's difficult to say. Both nets have a great deal to offer and both are aimed at different types of user; Fido is for the more technical while ILink is very easy going and open for all. For my money ILink wins, purely because of its carefree atmosphere, although I must admit to having first cut my teeth on FidoNet.

If logging on to a net appeals then finding a board near you is simplicity itself. Simply find one node and look at the origin lines on the foot of the messages for more numbers. The boards I used in this article were Brighton-based Six and Five Eights, on 0273 688888 (FidoNet) and Runway A500 in Crawley on 0293 884117. Logging on to either of these boards and having a look around, or a chat with the sysop will reveal more boards which may be a little closer to you. Have fun! PD

PD versus commercial

A common question asked about public domain and shareware software is, "How does it compare to the real McCoy?" In the case of networks the answer has to be, "most favourably".

Both the larger networks – ILink and Fido – hold conferencing on a scale close to the commercial systems, both in terms of the number of message areas and the countries they reach. Being bulletin board-based most networks have a wide variety of downloads on offer. Some Fido boards even enable users to download files from separate boards, thus increasing the range of files available.

Where the commercial systems really score points, however, is in their ability to carry topical non-computer related areas such as news, sport and current affairs, especially on Compuserve. Another feature not possible on the PD networks is multi-user games. These rely on immediate feedback to the user which just cannot be achieved on a mail network. But then, you are paying for it...

For a fast, reliable but foremost friendly service.

STAR TRONICS

AMIGA PD

1-9 disks £1.20
10 - 15 disks 99p
15+ 90p

FREE PROGRAMS
Order 10 get 1 FREE
Order 20 get 2 FREE
Order 25 get 3 FREE

061 370 9115

No minimum order.
All orders sent out the same day.

DEMOS
DE001 Red Sector Demo Maker
DE006 Ghost Writer
DE008 Speech Toy
DE009 Abnormal Demo
DE015 Predators (2 disks)
DE017 Wave Sailing (2 disks)
DE019 Robocop 2
DE245 Odyssey (4 disk)

UTILITIES
UT046 Pendle Europa
UT051 Amibase V3.76
UT057 A64 Emulator
UT114 ASS Menumaker
UT145 Vogue Util's (Brill)
UT179 CLI Tutorial +
UT190 Video Graphics (3 Disks)
UT214 Amateur Radio (6 Disks)
UT237 Work Bench 2 (A500+) only
UT253 D-Copy 2

GAMES
GA008 Pipeline
GA030 Tennis
GA067 Truckin (2 disks)+
GA086 Assassins 1-20+
GA180 Star Fleet +
GA182 Killer Cars +
GA204 Chess Tutor II +
GA205 A500+ Games Pack +
GA207 Cars Sharp +

MUSIC
MU017 Digital Concert (2 to 6)
MU025 Star Trekker
MU034 Queen (2 Disks)
MU055 Pro Tracker V3.00
MU072 Mozarts Flute Concerto
MU077 Puma Tracker (Brill)
MU058 Mozart (2 Disks)
MU054 EFX Music Creator

GRAPHICS
001 M-Cad
003 Print Studio +
005 Clip-Art 1 to 13 + Original set uncut
024 Colour Fonts (5 disks)+
028 Walt Disney Clip art +
033 Graphics Utils +

BUSINESS
BU004 Clerk (Brill)
BU005 Genealogy
BU007 Bankin'
BU016 Text Plus V3.00
BU019 Analyticalc V2.00
BU021 Amicash V1.0+
BU025 House Hold Inventory
BU026 Textengine +
BU031 BBase (Database)+

AMOS
APD014 IFF Pics No1 (Brill)
APD031 Screen Designer
APD033 Pink Goes Ape
APD036 Amos 1.3 Update
APD101 Auto Player V1.10
APD123 Deadline
APD205 R.Draw V1.48
APD303 Litter Busters
APD329 Fruit Machine II

SETS
SPD001 Beginners1.(5 disks - £5.80)
SPD002 Beginners 2.(5 disks - £5.80)
SPD003 Clip Art 1.(4 disks - £4.60)
SPD004 Clip Art 2.(4 disks - £4.60)
SPD005 Games 1..(5 disks - £5.80)
SPD006 Games 2...(5 disks - £5.80)
SPD007 Clip Art 3..(4 diks - £4.60)
SPD008 Educational 1 (4 disks - £4.60)
SPD009 Educational 2 (4 disks - £4.60)
SPD010 Edu/Science 1 (4 disks - £4.60)

StarTronics
4 Arnold Drive, Droysiden, Manchester M35 6RE

ACCESSORIES
3.5 50 cap box £4.95
3.5 100 cap box.....£5.90
Banx Box £9.00

DISK SPECIAL OFFER
Sony Bulk £4.90
KAO Bulk.....£4.99

+ = Compatible with Plus

Postage & packing 70p Add £3.15 per item for disk box. Please submit payment by cheque or postal order

FRED FISH 1 - 580
TBAG 1 - 060

Disks:
1-10 1.25
11-20 1.10
21+ 0.95

PRODISC P.D.

For Amiga PD TELEPHONE: 021-628-1450

Postage:
U.K. 60p
Eur. 1.50
ROW 2.50

Phone NOW for your FREE printed catalogue

Open 24 HOURS a day 7 DAYS a week, for orders and technical help

Soundtracker Pack (not plus)	13 disks	12.00
Educational Pack 1 age 5+	7 disks	7.00
Educational Pack 2 age 11+	8 disks	8.00
Utilities Pack all you need	10 disks	9.50
Games Pack 1 (not Plus)	5 disks	5.00
Games Pack 2 30 games	10 disks	9.50

PD ON VIDEO
Prodisc PD brings you 3 half hour videos:

The Catalogue	3.95
Erich Schwartz	4.95
Tobias Richter	4.95

TO ORDER: Either phone for your free catalogue and then use the order form attached, or write your order on a piece of paper and send it to us, together with a cheque or postal order made payable to Prodisc PD, to the address below. Please don't forget the appropriate postage.

81 Middleton Hall Road, Kings Norton, Birmingham B30 1AG

Build your PC Shareware Library with

ROBOSOFT SERVICES

£1.50 per disk or 99p per program unit
The choice is yours!!!

Sample selection! (Numbers in ( ) denote program units or no. of disks)

ACCOUNTING
Noyes Accounting (3)
Bookkeep
Sure Accounting
Page Financial Controller (2)

GRAPHICS/CAD
Graphics Workshop
Clip Art Colllection (3)
Painter's Apprentice
DraftC
Flowcharter
Dancad 3D (5)

PROGRAMMING
DDS for C
Personal C Compiler
ESIE
C2DBASE Functions
FST Modula-2
TESSERACT

UTILITES
4DOS
Grab+/Wingrab (2)
PKZip/PKunzip
Fontastic
Printer Setup Utility

WINDOWS (2 AND 3)

MAY OFFER
Utilities Pack (50 Progs) - £9.95
Graphics Pack (20 Progs) - £6.95
Graphics Pack (20 Progs) - £6.95

EDUCATION
EGA Colouring Book
Caltest GCSE Comp. Studies
Caltest Integrated Sc.
Calfacts GCSE Maths
Amy's Primer

For a free catalogue, or orders ring: (081) -800 - 5099
36 Elizabeth Place, London N15 4LA
*Please register any shareware program you may find useful

SOLENT SOFTWARE

PUBLIC DOMAIN FOR THE ATARI ST

FULL RANGE OF GAMES, DEMOS AND UTILITIES INCLUDING ALL THE POV COMPACT DEMO DISKS

ALL PD DISKS ARE FULL AND DOUBLE SIDED

PRICES
1-9 DISKS: £2.00 EA. 10 OR MORE: £1.50 EA.
SUPPLY YOUR OWN BLANK DISKS: ONLY £1.00 EA.

FOR A FREE COPY OF OUR LATEST DISK CATALOGUE SEND A BLANK DISK AND SAE OR JUST SEND £1 FOR CATALOGUE ON ONE OF OUR DISKS WITH FREE PD.

A SMALL SELECTION FROM OUR EXTENSIVE RANGE

GAME.49	REVENGE OF THE MUTANT CAMELS - latest shoot'em up from Jeff Minter + 3 others.
GAME.50	KLATRIX, 8 BALL, ENTOMBED, ROCKFALL AND MYSTIC WELL - brilliant collection.
GAME.54	MICHAELS BIG ADVENTURE - childrens adventure written with the Tailspin system.
GAME.57	THE MANAGER - latest football managment game - win the League and FA Cup!
GAME.59	STRIKER/SWIFTAR - two excellent 'Flying Shark' type vertical scrolling games.
DEMO.92	ULTIMATE GFA DEMO by the Overlanders, 12 brilliant demos written in GFA basic!
DEMO.97	DARKSIDE OF THE SPOON - full screen mega-demos from ULM and guest screens.
DEMO.102	VODKA DEMO - ten unbelievable screens from Equinox. One of the best to beat.
DEMO.103	WHAT NOT TO DO - 8 short comical animations from the Inner Circle. Very funny.
DEMO.114	MY WORLD - massive 780K sample of GUNS'N'ROSES 'My World' by the Marauders.
UTIL.1	28 Desktop accessories complete with Accessory Loader, Ramdisks etc
UTIL.4	6 Databases plus 2 Label Printers, good selection for your home business.
UTIL.19	STICKER III - create and print excellent disk labels with text and graphics.
UTIL.29	OPUS V2.2 - excellent GEM based spreadsheet and charting program. 1 MEG RAM.
UTIL.32	GEMINI - replacement desktop from Germany, similar to Neodesk. 1 MEG needed.
WORD.1	ST. WRITER V4.2 with W.P. utilities plus 2 Type Tutors and 2 Spell Checkers.
WORD.3	1ST WORD. Still the best Word Processor with Printer Drivers and Word Counters
WORD.22	DESKJET Printer Drivers for the HP Deskjet and Cannon Bubblejet plus utilities.
ART.13	6 excellent Art Programs including Van Gogh, Art. ST, ST. Graph and ST. Cad.
ART.11	COLOURBURST and FINE LINE art programs with Snoopy and Garfield Slideshows.
LANG.2	STOS Basic Source Code for five complete games - Stos Basic required.
LANG.17	Adventure Game Toolkit (AGT) write your own 'Infocom' style adventure games!
LANG.18	AGT Source Code for eight complete adventure games. (LANG.17 required).
MUS.6	ACCOMPANIST V2.4 midi sequencer by Henry Cosh, includes loads of samples.
MUS.14	EMPIRE NOISETRACKER the full version with modules, samples, source code, etc.
MUS.23	ALCHIMIE JUNIOR SEQUENCER the latest and best midi sequencer available. 1 Meg.
MISC.8	CITADEL, VULCAN EMBASSY and ENTERPRISE - three excellent BBS programs.
MISC.10	KERMIT V1.02 and VANTERM V3.8 - two of the best communications software.
MISC.14	FILM FILE ENQUIRY - database of over 2000 films with actors, director, etc.
MISC.26	INTO CONCEPT DEMO CREATOR - Create your own demos with a few mouse clicks!

SOLENT SOFTWARE
53 RUFUS GARDENS, TOTTON, HANTS. SO4 3TA
TEL. 0703/868882

DEJA VU Software

(Dept. PS5), 7 Hollinbrook, Beech Hill, WIGAN, Lancashire WN6 7SG Tel: 0942 495261
AMIGA ONLY -STRICTLY MAIL ORDER

IMPORTANT!!! WE HAVE MOVED

Now in our third year of trading. **(* denotes 1Mb)**

DEJA VU Professional Licensed Software Titles

TITLES FOR THE KIDS
LPD4: Thingamajig
LPD5: Jungle Bungle *
LPD8: Work And Play *
LPD10: Word Factory *
LPD14: Play It Safe *
LPD15: Arc Angel's Shapes *
LPD27: Flower Power *
LPD29: Big Top Fun *
LPD37: Rocket Maths *
LPD45: Music Box *
LPD48: Stocking Fillers *
LPD49: Marvin the Martian *
LPD51: Magical Young Artist
LPD59: Prehistoric Fun Pack *
LPD70: Paintbox *
LPD72: Monster Island *
LPD82: Col. Book II* **NEW!**
LPD83: Picture Hangman* **NEW!**

MISCELLANEOUS
LPD42: X-Stitch *
LPD52: LC24/200 Fonts
LPD73: Amos Database V3.01
LPD75: Video Lab *
LPD81: Pools Pro V1.1

GAMES
LPD11: Go-Getter*
LPD17: Dogfight II *
LPD19: X-It-50
LPD47: Dirty Cash *
LPD66: Hotel Manager *
LPD67: Cyadonia *
LPD69: Magical Mix-Up
LPD71: Amos Battlecars *
LPD74: Sour Grapes *
LPD76: T-TecMaze *
LPD84: Guess Who * **NEW!**
LPD85: Magic Wassocks * **NEW!**
LPD87: Puzzword * **NEW!**
LPD89: EGO * **NEW!**

FOR AMOS PROGRAMMERS
LPD40: Sprite Bank Editor
LPD55: SpriteX *
LPD56: CText *
LPD79: Music Engine * NEW!
LPD86: NCommand NEW!
LPD88: Remm * NEW!

NOW AVAILABLE
FRED FISH 400-630
AMOS PD 1 - 373

LICENSED SOFTWARE PRICES:-
£3.50 each UK (incl: VAT), **£3.75 each Europe, £4.00 each ROW**
All prices include a royalty payment to the programmer.
NEW PD PRICES: from May 1992
£2 per disk UK (incl. VAT), **£2 Europe, £2.25 ROW**
Choose 1 PD disk free with every 10 disks.
POSTAGE AND PACKING:
Add 50p P&P to total order

Access VISA

Cheques/PO's should be crossed and made payable to **DEJA VU Software**

Send **£1** for our catalogue disk for details of our **Clip Art Collection, General PD** and the **Official AMOS PD** list. Approaching **90 DEJA VU** Licensed Software titles. **AMOS & COMPILER** updates now V1.34

Painting by numbers

OK, so fractal images won't be replacing Turner and Dali in the world's art galleries, but they have a unique, fascinating quality. From vast landscapes to eerily surreal patterns, thanks to fractal mathematics your computer can paint the lot. But is there more to fractals than a just load of pretty colours? Is there any point to them? Tim Howell discovers whether there is any logic behind the chaos...

Massive cliffs rising majestically out of calm blue seas; delicate ferns; jagged coastlines. Nope, you're not watching *Holiday 93*, you're sitting in front of your computer. And it's not digitised images of the real world on the monitor, but pictures that your computer has created itself through mathematics.

Not possible? It is with the help of fractals. They can turn ordered mathematical calculations into images that resemble the disorder of the real world and this relationship is not as tenuous or as absurd as you might think.

Most people don't think of fractals as mountain landscapes or cloudy skies. Instead, they're often thought of as colourful geometric patterns irregularly positioned on a computer screen. The truth is, all these things are fractals; they can be used in many different ways. Of all the different varieties that exist, though, there are three factors common to them all.

For a start, all fractals are generated by relatively simple calculations – for the computer at least – that are repeated over and over again. The result of one calculation is re-fed back into the equation to get the next result, and so on. Computers can do this all at great speed which makes fractals one application perfectly suitable for them. Often you will find fractals described as chaotic, but strictly speaking this is not true. While the results that fractals create on-screen may look chaotic, they are created using equations, with the images a natural and calculated result of the number crunching.

Fractals are also infinitely complex. If you zoom in on any area of a fractal, more and more detail is revealed. In theory you can zoom in infinitely with more detail being revealed all the way. This concept can be explained in an analogy, one that was used by Benoit Mandelbrot, the man most responsible for advancing fractal theory.

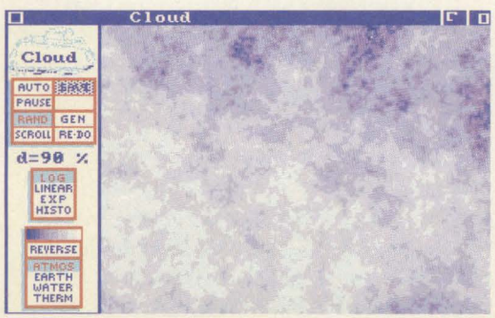
If you get a satellite map of Britain and look at the landscape's coast lines you'll see all the contours of the landscape. Look closely at one area – in other words, zoom in on it – and you'll see that part of the coastline in more detail. Zooming in even further will get more detail, and gradually you'll see rocks, then grains of sand and so on, until you get to the size of an atom and further. In other words, there is no limit to what you can see, and this is the same principle that is used in fractals.

The third and most attractive characteristic of fractals is simply how they look. On any machine capable of displaying colour, including the Amiga, PC and ST, they can look incredible.

Going off at a tangent

The ideas behind fractal geometry can be traced back to the late 19th century when mathematicians created shapes out of sets of points that, they thought, had no counterpart in nature. As it turned out, the abstract theories used to generate these shapes had more to do with describing many natural shapes and processes than any of the other theories that had been used (in mathematical terms, at least).

It all started with calculus, the branch of mathematics that has 'differentiation' techniques for finding the derivatives of functions, and which are used in geometry to find the tangent of a curve at any given point. A tangent is a line that is 'connected' to a curve at an angle of 90 degrees. Calculus gave mathematicians a standard method of handling the relationships of different points in a shape – this enabled them to create shapes using maths. There were exceptions: some points couldn't be differentiated, and the shapes would not come out as expected, but these were treated as freaks and were generally ignored.



This picture, from the Amiga program *Cloud*, shows how realistic computer-generated images can be created using fractals

> *"Fractals can turn ordered mathematical calculations into images that resemble the disorder of the real world."*

Things changed in the early 1870s, though, when the mathematician Weierstrass discovered a function that was continuous but couldn't be differentiated; no tangent could be described at any point. Around the same time, another mathematician, Cantor, demonstrated how a simple repeated procedure when used on a line could turn it into scattered points. These and other mathematical relationships were discovered that appeared not to conform to the current theories of the time.

Other areas of mathematics also experienced strange phenomena; shapes and objects that were different to what the theories said they should be, where traditional models could not match the data.

As more of these relationships became apparent, it was gradually realised that these non-similar relationships had much in common. Most importantly, the graphs made of these phenomena

cont. on p34

often had the property of self-similarity: a small magnified section of the graph looked very similar to a large one.

And along came Mandelbrot...

Many mathematicians advanced these theories, but it was Mandelbrot who recognised what they all had in common and formulated a new discipline out of all the different theories.

Benoit Mandelbrot was born in Warsaw in 1924 and moved to France in 1935. From the beginning of his research he diverged from the analytical way the French attacked problems, preferring to visualise them as much as possible so he could attack them in geometric terms.

After attending Ecole Polytechnique and then Caltech, Mandelbrot joined IBM in 1958 where he began a mathematical analysis of electronic 'noise'. He began to recognise a structure in his data, fluctuations of varying degrees that couldn't be explained using traditional statistical methods. The more research he did, the more that seemingly unrelated problems were all drawn into his theory of ideas that were to become fractal geometry.

As the years went by, computers developed improved graphic capabilities enabling the data Mandelbrot collected to be visualised on-screen. Using this technology, and his fractal models, most data that was inputted began to resemble shapes and objects from the real world.

This visualisation of data was extended to the physical world as well as the theoretical. Mandelbrot wrote an essay entitled *How Long is the Coast of Britain?* which stated that the answer to this question varies depending on the scale at which the distance is measured. As mentioned earlier, the distance grows longer as each bay, inlet, stone and grain of sand is taken into account. At the same time he also developed the self-similarity concept, that is where every point of a mathematically-generated shape is constructed from lots of smaller but identical shapes. (Did I hear someone say you can prove anything with maths?)

Mandelbrot extended these theories in his two books, *Fractals: Form, Chance and Dimension* and *The Fractal Geometry of Nature*, in which he argued that traditional mathematical models were unsuitable for measuring natural forms and processes; that the 'illogical' shapes that mathematicians had discovered many years before were not so illogical and were useful graphic approximations of natural phenomena such as clouds and galaxies. Using this presumption, Mandelbrot developed and justified the fractal model as we know it today.

But what can they do?

They look impressive on-screen, sure, but do they actually serve any purpose? The answer is, yes. Many of these uses have come about as a result of the research that caused the development of fractal theories in the first place:

- They have been used to plot the distribution of stars and galaxies throughout the universe
- They have helped with the study of fluid turbulence
- They have been useful in the study of genetics and DNA.
- Movies have used fractals to create special effects sequences; the planet Genesis in *Star Trek II – The Wrath of Khan*
- Another computer-related technique is the use of fractal techniques for the compression of data. Because, in graphic terms, pictures such as mountains and clouds can be generated using a single number (plus a few parameters) in combination with a fractal algorithm, this can be used in 'reverse' to compress data.
- The use of fractal mathematics to help explain natural phenomena is an interesting one, but it is difficult to see how or why these numbers can approximate to nature or if they do at all. It is one thing having a fractal program draw a realistic-looking mountain scene on a computer screen, but whether these equations enable the explanation of life, the universe and everything is somehow difficult to believe...

The maths behind the madness

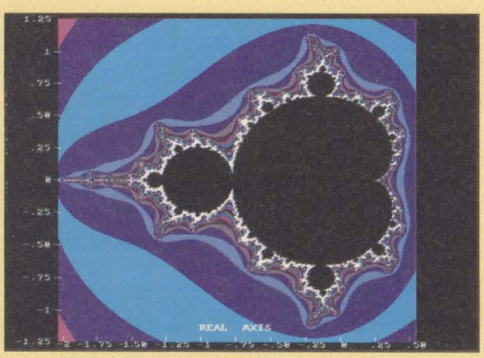
There are hundreds of different fractal patterns, each generated from a simple equation. Some of them follow the format of the equation established by Mandelbrot, while others are more complicated. Here we explain the maths behind two of the most common fractals, the original Mandelbrot set and the Julia set, which is a slight variation on it.

The Mandelbrot set

Mandelbrots, while they look nice on-screen and appear to be made up of random pixels, are actually graphs of complex numbers which are passed through the equation:

$$z(n+1) = z(n)^2 + c$$

The graph works on the following principles. The x and y co-ordinate axes (horizontal and vertical) represent the ranges of two different quantities which are independent from each other. Numbers in the x axis are ordinary numbers, while the y axis is made up of imaginary numbers. An imaginary is made up of a real number which is multiplied by i, where i is the square root of -1. The number is imaginary because according to traditional mathematical theory, negative numbers can't be square rooted.

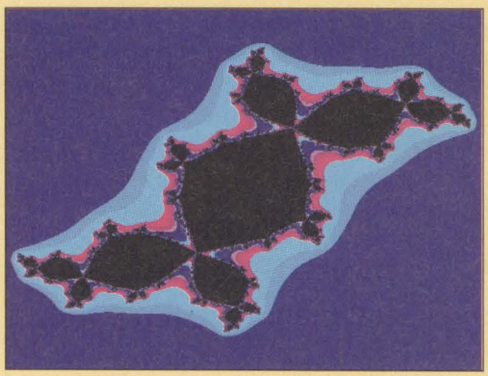


Mandelbrots are not made up of random pixels but rather are generated from calculations which produce results that are plotted on a special graph, as shown here

The next part of the equation is the complex number. This is usually in the form of x + i*y and represents the plane on which the equation is plotted – basically you are defining your parameters. For computers, the 'plane' is the display screen. Once the complex number is chosen, this is called c, the constant. This number remains the same value throughout the calculations. Another number has to be chosen, one which can vary, and this is called z. It starts at 0 for the first calculation then increases with each subsequent calculation. For certain values of c, when they are plotted on the graph, the results 'level off' after a while. Other values, however, make the graph grow without limits.

The colours and lines that are created depend on the relationship between the x and y values and the number of times the equation has to be calculated before the results obtained from it appear to move towards infinity. If the results don't move towards infinity and stay relatively steady, then the equation plots black on the graph. The other colours come about as the results slowly move towards infinity, with a different colour for each level approaching this 'boundary'.

After some experimentation with the two-dimensional images that resulted from his initial calculations, Mandelbrot looked into creating three-dimensional objects using the same formulae but arranging the data on grids. It was while doing this he discovered that by colouring the results obtained in the calculations according to the amount they moved towards infinity he could create mountain scenes and, by using the same rules but different equations, clouds, ferns and other natural-looking objects.



Julia images, such as this one, are created using the same techniques as Mandelbrots, but they use a slightly different calculation. As you can see, the results are also different...

The Julia set

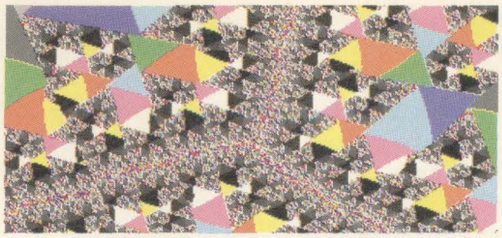
Apart from the Mandelbrot set, one of the most common types of fractal is the Julia set, named after the mathematician Gaston Julia. Historically the Julia set came first; as Mandelbrot looked at his own Mandelbrot set in relation to the Julia set and discovered their similar properties.

The equation that is used to calculate them is similar to the Mandelbrot set and differs in only one respect. It uses the same formula, $z(n+1) = z(n)^2 + c$, but c is defined as c + c*i, where i is the imaginary number. This differs from the Mandelbrot set where the value you entered for c is the one that is used for the equation; this time c is re-calculated to get a 'new' value, which is then used for all the calculations.

Many of the other types of fractals are variations on the equations used to create the Mandelbrot and Julia sets. Some equations add extra parameters, introducing z, a three-dimensional value, and vary the constant in different ways. When this happens the on-screen display can vary enormously, even with a very small change in the values that you input.

Reviews round-up

Fractals can take many different forms, ranging from the traditional Mandelbrot image to mountains and even clouds. As a result, there are a number of different programs around to create these different fractals, and on the next few pages we look at some of the best around for the ST, Amiga and PC...



This image, which looks like the view through a kalaedoscope, is one of many different types of fractals that *Fractint* can generate

Fractint

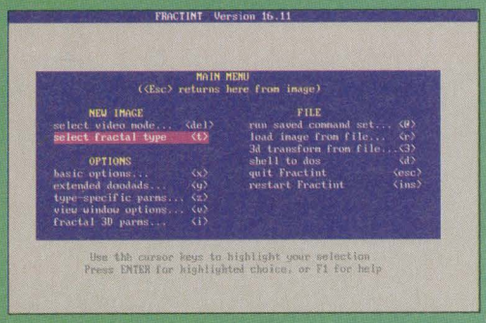
When it comes to drawing fractals, *Fractint* really can't be beaten. Not only does it offer a wide range of different fractals to create and display, it also enables you to do a number of things to them.

Written by a number of fractal enthusiasts, who have each contributed different parts to the program, their knowledge and enthusiasm shows in the way

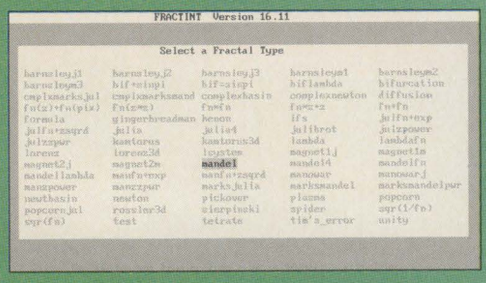
STEP-BY-STEP GUIDE

Creating new worlds with Fractint...

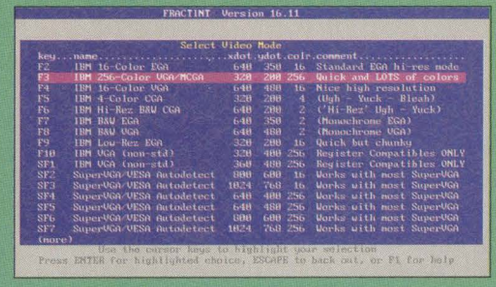
Of the many programs that are available for creating traditional Mandelbrot and related fractals, *Fractint* is by far the most comprehensive. In spite of its complexity, the program is relatively easy to use, with good looking results achievable without much trouble. Here's how *Fractint* goes about its business...



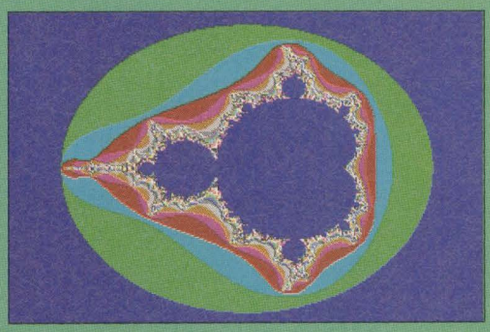
1 **As soon as *Fractint* loads this is the screen with which you're presented: the main menu. All of the program's functions are accessed from this screen, including the program and file options. To choose the fractal you want to render on-screen, go to the Select Fractal Type option screen**



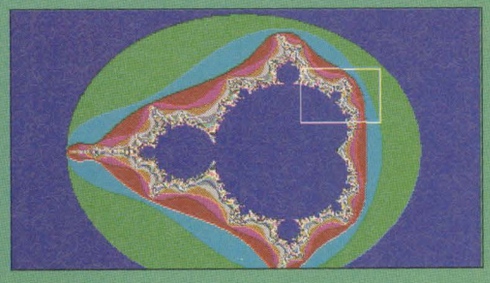
2 ***Fractint* gives you 70 standard fractal types from which to choose, and each of these can be customised and set-up in different ways to adjust the image you get. We'll go for the tried and trusted image – the classic Mandelbrot – although we could have gone for any one of the other, often more complex**


FRACTINT Version 16.11
Select Video Mode
key...name.....xdot.ydot.colr.comment.....
F2 IBM 16-Color EGA 640 350 16 Standard EGA hi-res mode
F3 IBM 256-Color VGA/MCGA 320 200 256 Quick and LOTS of colors
F4 IBM 16-Color VGA 640 480 16 Nice high resolution
F5 IBM 4-Color CGA 320 200 4 (Ugh - Yuck - Bleah)
F6 IBM Hi-Rez B&W CGA 640 200 2 ('Hi-Rez' Ugh - Yuck)
F7 IBM B&W EGA 640 350 2 (Monochrome EGA)
F8 IBM B&W VGA 640 480 2 (Monochrome VGA)
F9 IBM Low-Rez EGA 320 200 16 Quick but chunky
F10 IBM VGA (non-std) 320 400 256 Register Compatibles ONLY
SF1 IBM VGA (non-std) 360 480 256 Register Compatibles ONLY
SF2 SuperVGA/VESA Autodetect 800 600 16 Works with most SuperVGA
SF3 SuperVGA/VESA Autodetect 1024 768 16 Works with most SuperVGA
SF4 SuperVGA/VESA Autodetect 640 400 256 Works with most SuperVGA
SF5 SuperVGA/VESA Autodetect 640 480 256 Works with most SuperVGA
SF6 SuperVGA/VESA Autodetect 800 600 256 Works with most SuperVGA
SF7 SuperVGA/VESA Autodetect 1024 768 256 Works with most SuperVGA
(more)
Use the cursor keys to highlight your selection
Press ENTER for highlighted choice, ESCAPE to back out, or F1 for help

3 **One of the most impressive aspects of *Fractint*'s presentation is the number of video display types it supports. All display types, ranging from Hercules to Super VGA are supported, and there are even special settings for individual makes and settings of these cards. The standard IBM 256-colour VGA should be fine for a lot of you**

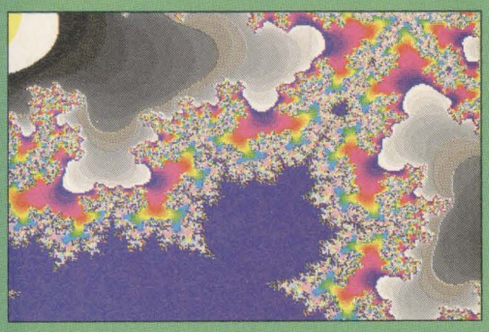


4 **Once the settings have been fed in, the image is then rendered on-screen. The Mandelbrot image we chose isn't too complex, so it finishes rendering in less than a minute. The way *Fractint* works is to first draw a rough picture of the image with 'blocky' pixels, then re-draw it with the finer pixels**

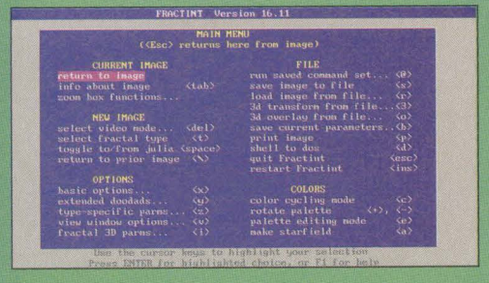


5 **Fractals are infinite in depth and you can examine at least some of this if you zoom in on part of the image. Pressing the PgUp and PgDn keys enables you to size a box that can be positioned anywhere on the fractal so you can see that part in more detail. Take a look at the top right corner**

6 **After a few seconds this is the close-up image that is displayed. Just like the first image, this one was drawn in two passes and took just as long (or as short) to calculate and render. As you can see, it is very detailed, with the shapes within it resembling the larger Mandelbrot image it was derived from. You can theoretically zoom in like this infinitely**



7 **When you zoom into the image again to have a closer look at it, even more detail becomes apparent. The colours in the image blend into each other more, particularly the greys, showing that the value of the colours at this level are quite close to each other, and could get even closer if you zoom in further**



8 **Once you've got the image you want on-screen, you can get back to a different version of the main menu screen. Apart from the standard file commands you can now find out more about the image, and access other features such as the colour cycling options which can be used to create spectacular effects**

cont. on p36

cont. from p35

the program is put together. Not only does it have a number of comprehensive options when it comes to generating the fractals, but once they've been rendered you can do a variety of things to them, such as colour cycling and even turning them into 3D objects, as seen through red- and blue-lensed glasses. Many of these functions don't serve any practical purpose, but they do help to demonstrate what weird and wonderful things fractals can do.

Most of the images that the program creates are fractals in the traditional Mandelbrot mould but there is a huge range of different formulas – 70, in fact – that create a wide variety of images.

In terms of presentation, *Fractint* is very good, up to the standard of virtually any commercial program which is very impressive for a program that isn't even shareware. Its documentation amounts to some 140 pages which are well organised and thorough, describing *Fractint*'s functions and explaining how to use it in great detail.

All in all *Fractint*'s an amazing program, not only scoring highly when it comes to creating fractals, but also as a lesson to all authors on how software should be written. The authors of this program are definitely enthusiastic about it and fractals in general, and the quality of *Fractint* lives up to this enthusiasm. And it's free! If you've got a PC and you're interested in fractals, then get *Fractint*.

PC 94%

Scenery

Whereas *Fractint* enables you to create what could be termed 'traditional' Mandelbrot images on the PC, *Scenery* lets you create impressive mountainous landscapes on the Amiga.

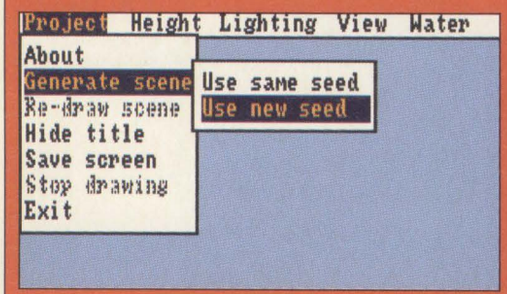
To do this, the program gives you a number of parameters to set-up and customise your screens. The fundamental element that is used to create these landscapes is the 'seed', a number that can be anything from 1 to 999,999, which determines the outcome of the image that is generated.

As well as the seed value, which does most to determine the size and shape of the mountain, there

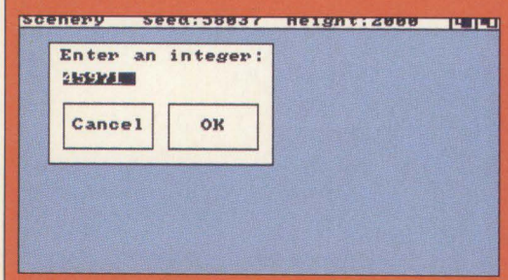
Admire the scenery – we show you how

STEP-BY-STEP GUIDE

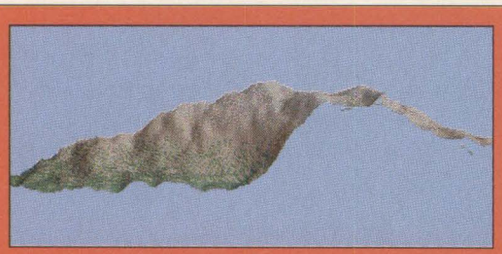
Apart from the traditional Mandelbrot images impressive landscape scenes can also be generated using fractal techniques. *Scenery* is one of the best programs available for achieving this, and it gets its results quickly as well. Here's how:



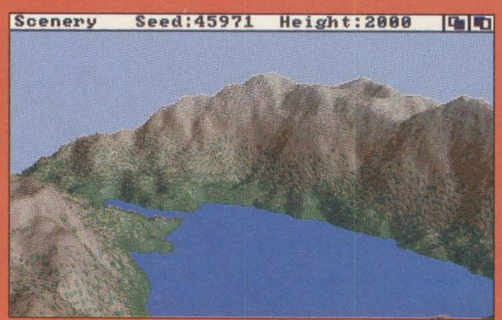
1 When *Scenery* first loads, you're presented with a blank screen. Not to worry though, it's easy enough to get a mountain scene drawn, which just happens to be *Scenery*'s speciality. To start with, go to the project menu and select Use New Seed from the Generate Scene option



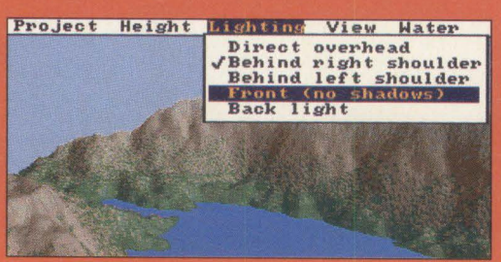
2 This will bring up a box which will already have a number in it, but which you can change to render your own image. This 'seed' value can be anything between 1 and 999,999 and is the main variable in the equation that generates the landscape. Different values achieve different results. Choose 45,971



3 Once the seed value is chosen, the landscape is automatically drawn, usually in about two minutes. Images are drawn one row of pixels at a time, with these rows starting at the 'back' of the image and then gradually moving forward. In this picture the image has been caught about one-third complete

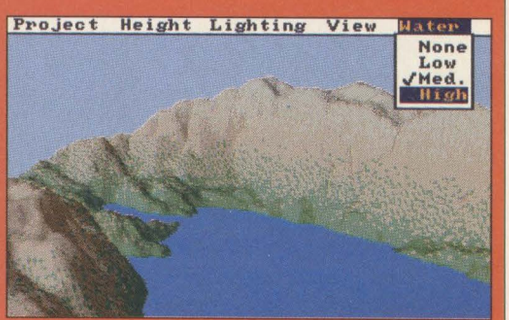


4 At last the completed image appears. For this particular seed value a nice harbour with surrounding hills has been produced. The images that *Scenery* produces are smooth and have little pixelisation compared to other programs of this type – impressive considering the speed at which images are drawn

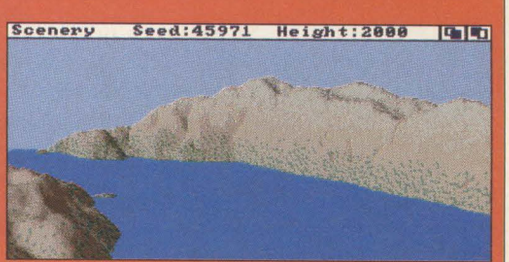


5 Various options can be changed to achieve different effects on the mountains. Right now, though, we'll try changing the lighting of the image, changing the setting from the light being projected from behind your right shoulder to having lighting from the front, which will get rid of any shadows

6 Voilà, the image with lighting from the front. There is a definite difference between this and the original image, and it could have been made much darker by using the back light, or varied by using the other options; it just depends on what you want



7 One of the other options is setting the height of the water in the image. Normally this is set at medium level but set it to the highest level just to see what happens. To balance the scenery you could change the height of the mountain as well, but for maximum effect just change the water level



8 At last you have your finished image. Perhaps it's not all that realistic – after all, who's heard of flooding in the summer time? (Then again, we *are* in England...) If this is how you want the final image to look you can easily save it as an IFF file, ready to be loaded into almost any art program

are other settings which can be used to adjust the outcome of the fractal landscape, such as the height of the image to determine how much space the mountain takes up on-screen.

There is also an option for lighting which alters the shading of the colours used in the image. These effects range from a frontal view which gives no shadows, to an overhead view, views from over your left or right shoulder, and a backlit view. The settings can, depending on the shape of the mountain, adjust the colours dramatically. It is also possible to view the image from different heights – low, medium or high – as well as adjust the height of the water that surrounds the mountains.

All of these options give a relatively high degree of control over the program, and the results that can be achieved are impressive. Unlike many fractal programs, *Scenery* works very quickly and images can be rendered in as little as four minutes. Once you've created an image you can save it as an IFF file which can then be used in most Amiga art packages.

A competent program that is functional and fast, *Scenery* offers just enough features to be able to entice almost anyone into the world of fractal mountains and landscapes. Go on, reach the summit of your imagination...

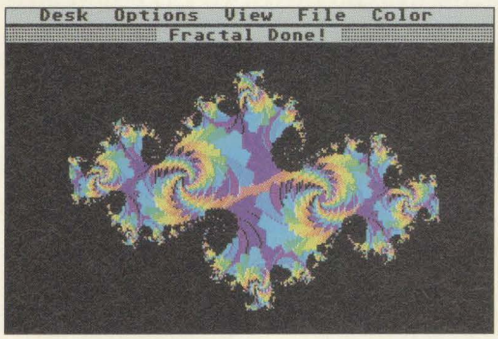
AMIGA 83%

Fractal Chaos

This is another program in the traditional Mandelbrot mould, but it is one of the best. Not only does it create mandelbrot fractals but also fractals using the Julia set and two other chaos formulas.

The program isn't terribly fast; it takes about 30 minutes to perform some of the more complex calculations. What makes *Fractal Chaos* stand out is its ease of use, with all the functions, such as its powerful zoom facility, accessed from pull-down menus. And the results are pretty impressive and well worth the wait

The images that you create can be saved as *Degas* files and then imported into most ST art packages. Another feature of the program, and an unusual one at that, is its ability to create movies – strings of fractal images that are played one at a time to give the illusion of animation. This doesn't have much practical use but it can cause some interesting effects.



***Fractal Chaos* can create amazing-looking images of both Mandelbrot and, as seen here, Julia varieties**

There is quite a lot to *Fractal Chaos*, and its functions and speed make it one of the best programs of this type available.

ST 81%

In conclusion

Despite the way they look, fractal images are not made up of random pixels and colours, but are generated from very precise calculations. There is a wide range of programs in the public domain that can be used to create fractals easily, including traditional Mandelbrot images as well as natural landscapes. Whatever you prefer, creating fractals is a fascinating experience.

Those details in brief

- FRACTINT – PC • 640K • Disk 2706A/B • The Public Domain and Shareware Library, Winscombe House, Beacon Road, Crowborough, Sussex TN6 1UL ☎ 0892 663298
- SCENERY – Amiga • PD • 512K • Disk U194 • Boot-Up, Computer Home Supplies, 30 Sunnings Lane, Corbets Tey, Upminster, Essex RM14 2DQ ☎ 0402 221591
- FRACTAL CHAOS – ST • PD • 512K • Disk ART58 • EMPDL, 54 Watnall Road, Hucknall, Nottingham NG15 7LE ☎ 0602 630071

Further fractal programs

MANDELBROT GENERATORS

AMIGA

- MANDELBROT ADVENTURES – Shareware • Disk 1197 • AmigaNuts United, 169 Dale Valley Road, Hollybrook, Southampton SO1 6QX
  A detailed but very slow Mandelbrot program
- MANDELBLITZ – PD • Disk U312 • Strictly PD, 11 York Place, Bristol BS1 5UT
  A fast but less detailed generator, with good zoom facilities
- MANDANIM – PD • Disk U312 • Strictly PD, 11 York Place, Bristol BS1 5UT
  Enables you to create your own fractal animations

ST

- TRENDY HANDY RANDY HENDY BENDY MANDY – PD • Prophecy PDL, 390 Coulsdon Road, Old Coulsdon, Surrey CR5 1EF ☎ 0737 554536
  A fast program capable of rendering Mandelbrots as well as Julias, it also has good zoom facilities but the results aren't always authentic in terms of colour shading
- FRAKTAL – PD • Fractals Disk 001, EVPD, 15 Cleeve Road, Gotherington, Cheltenham, Gloucester GL52 4EW ☎ 0242 675463
  A limited program which plots the Mandelbrot set on a graph which is drawn on-screen. Not brilliant

PC

- RECURSIVE REALM – Shareware • Disk 3119 • The Public Domain and Shareware Library (PDSL), Winscombe House, Beacon Road, Crowborough, Sussex TN6 1UL ☎ 0892 663298
  One for EGA and VGA users, this is a fast and complex program that also supports other varieties of fractals, including Julia sets
- MANDELBROT MAGIC – Shareware • Disk 166 •, The Public Domain and Shareware Library (PDSL) Winscombe House, Beacon Road, Crowborough, Sussex TN6 1UL ☎ 0892 663298
  Solely a Mandelbrot generator, this program also enables you to animate the images you create

LANDSCAPE GENERATORS

AMIGA

- LANDBUILD 3.2 – Shareware • Disk 1697 • 17-Bit Software, 1st Floor Offices, 2/8 Market Street, Wakefield WF1 1DH ☎ 0924 366982
  Though it doesn't produce results that are very detailed, *Landbuild* is an interesting alternative to *Scenery*

ST

- GENESIS – PD • Disk Fractals 001 • EVPD, 15 Cleeve Road, Gotherington, Cheltenham, Gloucester GL52 4EW ☎ 0242 675463
  A limited program that can render fractals quickly, but the images don't look very detailed and are small

Win one to wear one

One company that has certainly found a use for fractals for is Xtra-Byte in Newcastle. The company has gone fractal crazy. Not only does it include a plethora of fractal programs in its PD library but it is sticking fractal patterns on anything that doesn't move: T-shirts, mugs, posters and postcards being the most popular. And then, because they look so good, the company sells them. But if you want to get hold of of these wondrous articles for free, look no further, because we have five sets of T-shirts and mugs to give away, plus loads of large format postcards for the runners up. All you have to do is answers the following the questions, and send in the answers on a postcard or the back of a sealed-down envelope with details of your name, address and favourite character from Star Trek to: Freaky Fractals Compo, *Public Domain*, 30 Monmouth Street, Bath, Avon BA1 2DL.

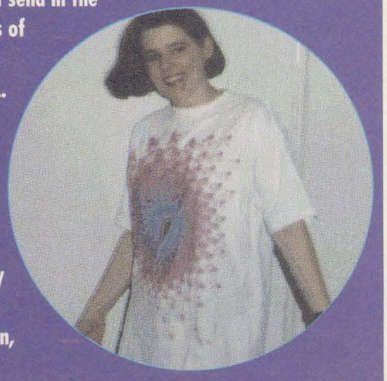
So, here are those questions:

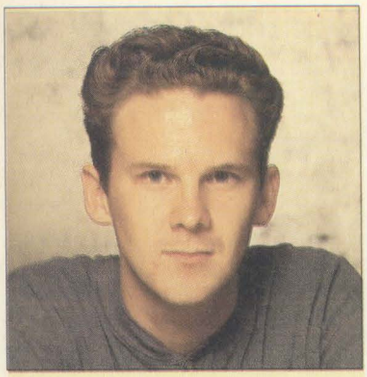
A) Who were the first two people to reach the summit of Everest?

B) What is six times nine?

C) What's the famous blue and white pattern you see on plates that depicts a chinese legend?

Entries should reach us by 30 June 1992. If you're not one of the lucky winners, don't worry. You can order your own fractal goodies from Xtra-Byte direct. The company can be found at 92A-B, Rothbury Terrace, Heaton, Newcastle-upon-Tyne NE6 5DB ☎ 091-276 1323.





Games

Get those joysticks plugged in 'cos it's time for a feast of fun and frivolity. Whatever your tastes, be they blasting aliens into tiny bits or getting your head wrapped around a really tough puzzler, PD has something for you. Adam Waring sorts out the gems from the dross...

REVIEWS INDEX

Bolo Adventures (PC)	42
Clodhopper (ST)	43
Cosmo's Cosmic Adventure (PC)	40
Doody (Amiga)	39
Jack's Blackjack (Amiga)	45
Jiggers (ST)	38
Lobotomy Invaders (ST)	45
Microbes (Amiga)	43
Oilcap (PC)	45
Serene III (Amiga)	45
Violence (ST)	41

Public domain and shareware games are improving in quality all the time. Some of the games you can find for little more than the price of a disk are rivalling commercial products more and more. The gap is closing... fast.

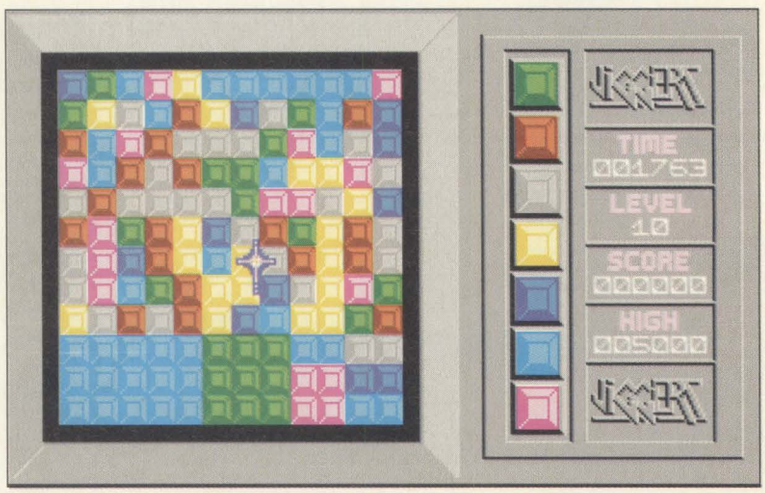
There are three truly excellent games reviewed this issue, one for each machine. All are comparable with the sort of games you could expect to pay £20 or £30 pounds for in the shops.

For the Amiga there is *Doody*, a brilliant version of the original *Mario Brothers* arcade game. It's especially good if you play it with a friend – I guarantee you'll find it hard to put down your joysticks.

The PC sees a new game released this month that most certainly is a rival to commercial products in terms of playability, polish and, well, everything you can think of. *Cosmo's Cosmic Adventure* is a brilliant console-style game that will turn owners of the Sega Megadrive and Super NES green with envy!

ST owners are not left out. *Violence* is a near-perfect shoot-'em-up for the Atari machine. There's tons of action with aliens appearing from every corner of the screen, plenty of power-ups and a whole host of fun. *Xenon 2* has nothing on this!

If only all games (commercial ones included!) were as good. Let's hope the public domain continues to show the software houses how to do their jobs.



The most difficult level of all has well over 100 blocks that have to be turned to the right colour. The principle is exactly the same as it is in those with less squares to play with

Jiggers

Time to put your 'brainy' head on, 'cos *Jiggers* is one of them puzzle games so beloved of PD programmers. A grid of tiles confronts you, with all the colours jumbled up. It's down to you to sort out the mess.

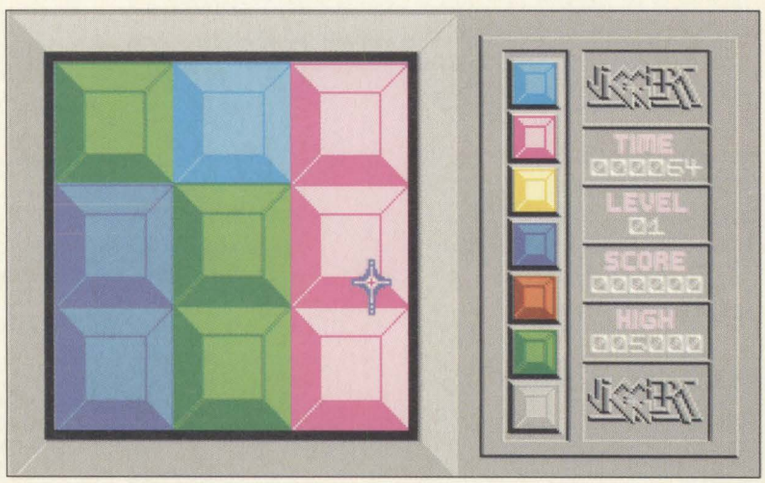
Click on a square and it, and all eight surrounding squares, will change colour. There are seven colours in all, displayed at the right of the main playing area and each click cycles through them – a click on the left mouse button cycles forwards, a right click backwards.

The idea is to alter all the squares so that they're the same colour, in which case the game's over and a score is recorded. There are ten levels of play, starting with a fairly simple three-by-three grid of nine squares, and ending up with a near-impossible 169-square grid with which to contend.

Problems soon arise because turning the colour of one tile affects so many others. So just when you've almost got it right a couple of clicks and you're back in a real mess again. Presumably you can learn the rules of how to recognise certain patterns and make the correct sequences of moves to achieve the end result.

Jiggers reminds me of the Rubik's Cube in a lot of ways, with one small change affecting tiles elsewhere, and while you can get your head around the mathematical concept, what's less sure is whether anyone would want to.

The graphics are fine and it's been slickly put together and all that, but there's not much in the way of yer actual fun to be had – it certainly didn't do a lot for me. Take away the polish and what you have is a fairly basic game that probably won't hold your interest for very long.

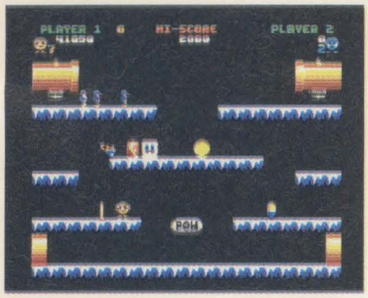


Just nine blocks to manipulate but even this isn't particularly easy. Click on a square and all those in contact with it change colour according to the list on the right hand side of the screen

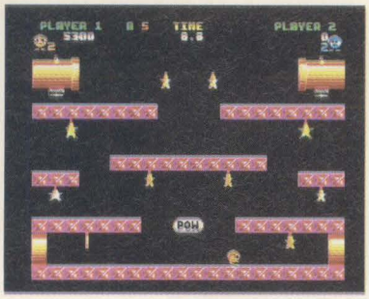
IN BRIEF

Type	Shareware
Registration	£5
Author	Digital Dimension
Requirements	Not STE • 512K
Available from	Riverdene PDL, 30a School Road, Tilehurst, Reading, Berkshire RG3 5AN ☎ 0734 452416

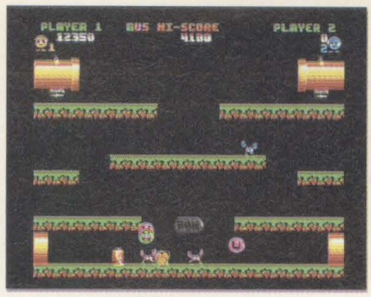
ST 58%



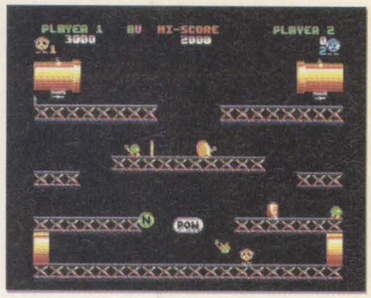
Brrr! It's a bit chilly in here. Every few levels the backdrop graphics change



Every four levels there's a bonus screen where you can tot up those extra points



Another one bites the dust. Contact with the creatures is fatal and loses you a life



He's history. That tortoise has been flipped from the platform and is easy pickings for you

Doody

How to hang out, be a cool Doody, and have tortoise-flipping fun. Classic arcade action brought to your Amiga...

Based fairly and squarely on the original *Mario Brothers* arcade game, *Doody* replaces Nintendo's famous characters with the Doodies – two round blobs, one of whom wears glasses, the other is blue and looks sinister.

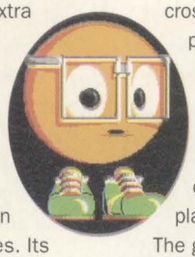
The plot's a bit on the non-existent side. Various creatures appear from pipes at the top of the screen, run along platforms and fall to the lower levels, until they reach other pipes at the bottom of the screen, when they start their journey all over again.

Your objective, quite simply, is to kill these harmless creatures that never did anything to hurt you. This is done first by dazing them, and then, when they lay there helpless, descending on their defenceless bodies for the kill.

Creatures are stunned by nutting the underside of the platform on which they're walking. A successful whack flips them on to their backs, where they lay for a few seconds. Then it's a case of walking into them to change them into points on your score. Should you collide with one that hasn't first been stunned, then it's you who's a life down. Ha! Serves you right, I say.

Whack the underside of a platform with a creature already overturned, and it will turn back over again. Leave it for too long before you go and claim your victim, and it will pick itself up, dust itself down, and start over with renewed vigour, changing colour to indicate that you made it mad.

Take too long to clear the level, and a ghost appears to chase you across the screen. There are also good things that appear, such as cans of coke and coins that give you extra points, invulnerability pills and the very occasional extra life. Also the letters that spell out the word 'Bonus' drift up the screen. Collect all five and you'll be one life in credit.



At the bottom of the screen is a Pow button for emergencies. Its use is limited, and hitting it is like hitting every platform on the screen simultaneously; every creature stood on one is flipped over. Careful though, creatures that have have previously been stunned will be righted again.

The first screens feature tortoises, which are superbly animated as they plod across the screen. Later you'll come across crabs, which to be hit twice before they flip, and penguins which move like a cat with a banger shoved up its... that is, they move very quickly indeed.

One or two players can take part, which makes an already excellent game even more fun. You play in conjunction with each other, but there's plenty of scope for being a git. A skull and crossbones, which in the one-player game simply gives points, will reverse the other player's controls. It's also great fun hitting a platform from below with a stunned creature on it, just as the other player is about to pick it up...

The graphics are small, but well drawn and are brilliantly animated. A stunned tortoise lies on its back, kicking its legs in the air. When it recovers it slips out its shell, stands up, and puts it back on again. Leave the controls alone for a while, and your character sits down in a huff until you pick up the joystick again. Touches like this polish an already superb game so much that you can see your face in it.

Doody is excellent fun! It's pure and simple arcade action all the way, and there are tons of levels to keep you occupied. It's a great one-player game, and scope added by the two-player option adds to the fun. Get it!

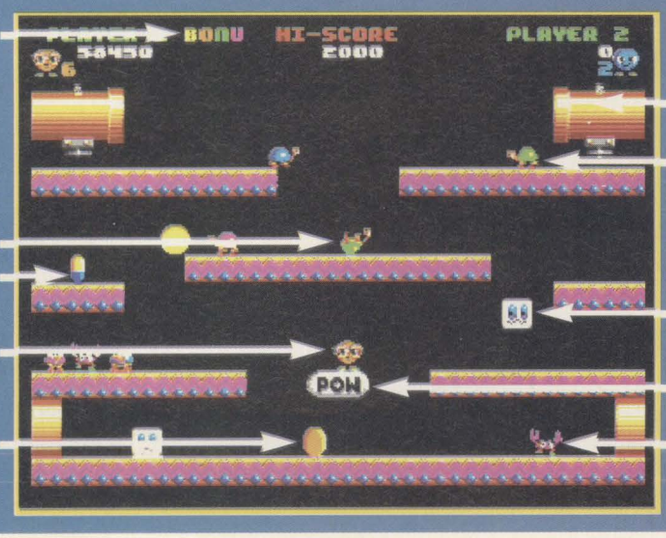
IN BRIEF

Type	PD
Author	Agile Productions
Requirements	1Mb
Disk number	1539
Available from	Start Computer Systems, Barbican House, Bonnersfield, Sunderland SR6 0AA ☎ 091-565 2506

AMIGA 94%

Things that go bump when you give them a fright

You'll meet a varied assortment of creatures and objects in *Doody*. Contact with all creatures is deadly – you need to hit them from below to stun them. Objects can be collected by either walking into them, or again by hitting the platform directly below them. Here's what to watch out for:



BONUS – light all the letters up for an extra life. Bubbles containing the letters that you need float up the screen occasionally for collection

STUNNED THING – you have just a few seconds to get it

POWER PILL – gives you invulnerability for a while

YOU – handsome fellow, don't you think?

COIN – collect these spinning objects for extra points

PIPES – baddies come from these in droves so it's best to keep well away

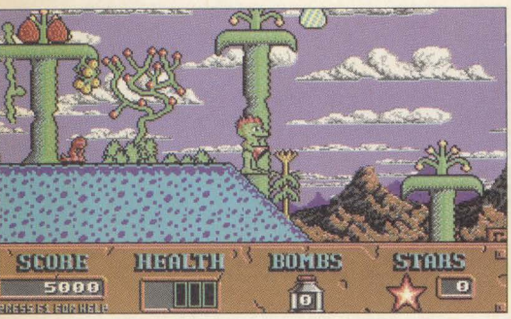
TORTOISES – hit them to flip them on their backs then collect them before they can get up

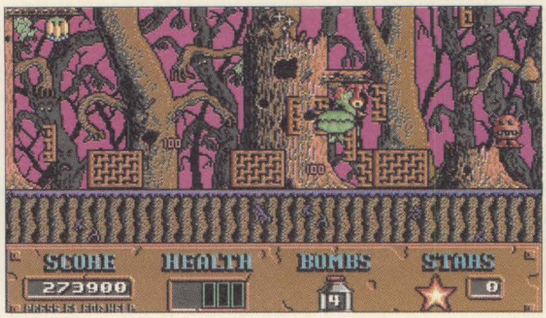
ICE CREATURE – crumbles with a single hit

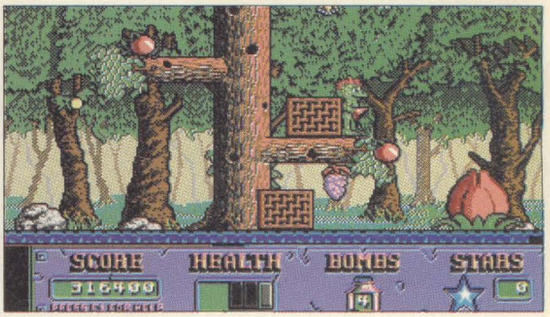
POW BUTTON – flips everything on the screen

CRAB – needs to be hit twice before it flips

cont. on p40







cont. from p39

Sega Megadrive? Super NES? Not a bit of it! This smooth-scrolling graphical great is available for the PC! *Cosmo's Cosmic Adventure* is a console-style treat with plenty to do, see and kill

Cosmo's Cosmic Adventure

Boldly going where no strange alien creature with suckers for hands has been before. It's, like, totally cosmic, man...

Poor old Cosmo. While he's been messing around on an alien planet his parents have been captured by a hungry alien! Rather than rejoicing at the fact he won't be sent to bed by half-past eight any more, the plucky Plutonian (or whatever he's supposed to be) decides to rescue his folks.

Cosmic's Cosmo Adventure is the latest in a long line of games from shareware success story, Apogee. Anyone who's played games like *Sonic the Hedgehog* on the Sega Megadrive will be in familiar territory – this looks, plays and feels like the console classic without being a blatant rip-off.

The game scrolls quickly and smoothly in all directions as the character runs and bounds around the screen. It's split into a parallax display, with the non-interactive background scrolling at a slower rate than the foreground where all the action happens. This gives the game depth, and looks fantastic!

The graphics are large, bright and bold and, despite the nastiness of the creatures they portray, cute! They're well animated too, and there are plenty of frames of animation to give them convincing movement. Even parts of the background are animated, such as the eyes on stalks that peer around the screen but do you no harm – great attention to detail.

It's split into a series of levels and Cosmo must make his way from left to right across the screens in order to reach the exit. Of course it's not as simple as all that, as there are plenty of baddies that make the journey less than smooth. Contact with them reduces one of your three lives. You can break some skulls, though, by leaping on top of them. The first lot of baddies you come across are a pain, but will die with a single leap. As you get further into the game, the nasties get nastier and need a more direct hits before they give up the ghost.

An even surer way to die than walking into baddies is to leap off the bottom of the screen. In this instance death comes swiftly and you have to restart the level over again.

There are goodies too. Tons of collectables are scattered around the screen and can be picked up for bonus points. You'll also find extra lives, bombs and stars for the taking.

Bombs are another device for killing. They are also crucial for getting to certain stages of the game. Release a bomb and it explodes a few seconds later – just make sure you're well away from the blast area or you'll end up with your pants on fire.

Stars are vital collectors' items, not because they appreciate in value and you'll get a packet for them from Sotherby's in a couple of years' time, but because they give you access to special bonus screens between levels.

Your character has hands like sink plungers and can scale walls with ease. Lucky, really, as otherwise you couldn't get through parts of the game.

When you've used up all your lives you restart on the level on which you died. That doesn't mean you'll finish too quickly; there are plenty of levels to get through. The game holds so many surprises that re-exploring a previously-conquered level will always yield a little more – try looking up every now and then! This is the best Apogee game to date without a doubt!

The good

FRUIT – they come in different varieties, but they all add up to points city Stoke-on-Trent

STARS – collect enough of these to enter to an end-of-level bonus sub-game

BOMBS – kill all known nasties dead. Also blows up hard-to-reach platforms

EXTRA LIFE – very useful for added longevity! Often found in secret places

CRATE – jump on it to reveal the contents. It mainly yields fruit for bonus points

BARRELS – similar to crates, but the contents are more useful extra lives and bombs

SPRINGS – catapults you for miles. Useful for getting on top of those high-up platforms

SPECIAL – gives you special abilities, such as invulnerability for a limited time

The bad

STALKY EYE THINGS – Not really nasty as such, but they're alien none the less!

COMMON OR GARDEN NASTY – you'll see plenty of these. Jump on their heads to kill them

PARACHUTING FIEND – these guys appear from the skies and take two hits to dismiss

SHOOTER – stationary, but fires deadly shots from its huge nose. Takes three hits to kill

BIRDS – these buzz you and are hard to kill because of the speed at which they move

PLANT – spits out nasties. If you leap into it then it will spit you out for a super-huge leap

CATERPILLAR – leaping on these wrigglies squishes it into a pool of deadly poison. Eeek!

CREEPERS – bomb these and jump over quickly. Careful, they grow back in an instant

The sub-game has plenty of goodies on offer

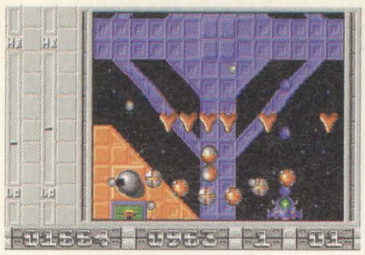
IN BRIEF

Type	Shareware
Registration Fee	£36
Author	Todd Replogle
Requirements	286 • EGA • 1Mb
Available from	SMS Shareware, 19 Carshalton Road, Camberly, Surrey GU15 4AQ ☎ 0276 681864

PC 97%

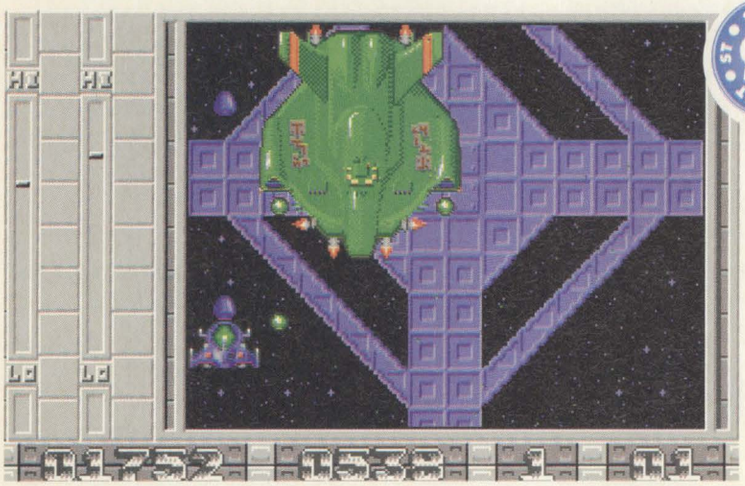
Visit distant planets, see exotic alien species and kill them. It's time to indulge in some mindless violence...

Eeek! It'a the attack of the orange metal things. Best keep out of their road...



Oh no! Blobs of death are coming your way. If only there was a settee to hide behind...

Lordy lawks! The mushrooms from hell know no fear. Looks like we're all going to die...



It's end-of-level mothership time. And you can forget all those extra weapons and power ups you saved so hard to buy. You're stripped of all those optional extras for this encounter

Violence

The galaxy's under threat once again, and it's the usual story; a lone fighter has been despatched to deal with the oncoming threat. And the pilot? Someone with years of experience fighting Zorgons from Zorgon 5? No, it's you actually, despite only just having passed your driving test and still having problems with parallel parking.

You're launched into the fray from your mother ship, which quickly buggers off to somewhere a lot safer, rather than hanging around for the inevitable death and destruction that is about to follow.

The battle takes place over a vertically-scrolling backdrop. The background scrolls in two planes of parallax, and the enemies zip around at a fair old pace.

You move a lot slower, but you're a lot brighter than them. They move in simple attack patterns, but there are so many of them on screen at once moving so quickly that you have a real job on your hands just trying to steer clear of them.

The best tactic is to stay well away from the edges of the screen; the enemy doesn't only come from the top, but may appear from the bottom and sides as well. For topping them you not only get points, but you also get cash for your kills.

And that cash comes in mighty handy. You're armed, first of all, with a forward-firing single shot, but hold down the fire button for a couple of seconds, or tap the space bar, and you enter the Weapons screen.

Here you can top up your firepower a tad. Everything has a price; the better the piece of hardware, the more it costs (and the more nasties you can blast into oblivion). In fact, it's essential to go shopping as soon as possible, and if I might make a recommendation, the Side Balls are an excellent choice once you've scrapped together 500 credits (or whatever space-currency is being used). These sit either side of you at a slight distance, and anything that gets in their paths soon becomes scrap metal.

You can't rely on this extra firepower all the time, though, 'cos sooner or later you'll come across a big, bad end-of-level mothership that needs several hits to destroy it. All your goodies disappear here and you have to use cunning and a lot of well-placed shots to do it over.

Violence lives up to its name – there's plenty of it. The pace is fast and furious – everything a good shoot-'em-up should be. What's more, with registration being just a fiver, it has bags of value for money. What an excellent game!

Shopping list

When the going gets tough the tough go shopping. But not for cornflakes and toilet paper – the goodies on sale in Weapons 'R' Us give you more destructive capability than Sellafield:

Weapon	Cost	Effect
Rear Shot	250	Fires backwards
Side Shots	500	Fires sideways
Front Shot	250	Fires forwards
Turret	300	Rotates and fires sporadically
Rear Ball	250	Protects your behind
Side Balls	500	Protect your sides
Front Ball	250	Protects your front
Mine Dispenser	300	Deploys mines
Freeze	250	Stops everything in its tracks
Shield	1,000	Complete protection
Super Shot	500	More powerful shots
Electro Shot	250	Wiggly shots
Fourway Missile	300	Fires in all four directions
Smart Bomb	400	Kills everything on the screen
Speed Up	250	Quickens the pace
Shot Distance	250	Extends your shot distance
Energy High	1,000	Tops up energy
Weapons High	250	Tops up weapon power
Twin Lasers	500	Two forward-firing lasers
Scatter Mine	500	Deploys a randomly scattering mine

A shop with more mouth-watering goodies on display than Thorntons. You can power up your ship with as much hardware as can be fitted – as long as you can afford it of course

IN BRIEF

Type	Shareware
Registration	£5
Author	Martin Barlow
Requirements	512K • Colour
Available from	

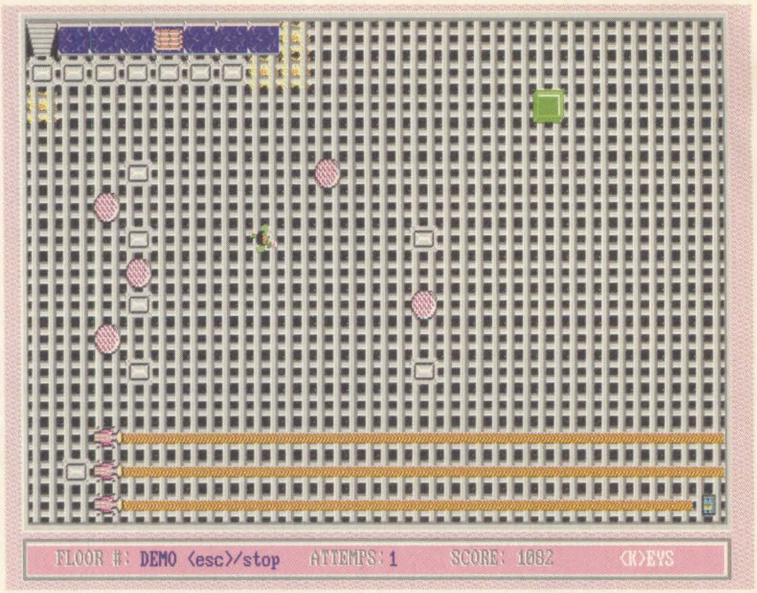
Martin Barlow, 33 Torr Vale Road, Newmills, Stockport, Cheshire SK12 3HS

ST 93%

cont. on p42

Bolo Adventures

Thinking caps on because we're going on an adventure where puzzles, perils and pitfalls are the order of the day. Can you figure out the answer all 40 of the tricky levels that confront you in each of the Bolo Adventures?



The puzzles are all deviously constructed, and will take several goes before you crack them. A demo level shows you how the different objects work together by solving this problem for you

cont. from p41

Hmm. A of a puzzler this one. Or rather, these two. *Bolo Adventures* and *Bolo II* are two games on two separate disks, but are, in fact, pretty much the same. They even play in the same game shell. The distinction is that they have different levels from one another. So, we'll review them as one, shall we?

Your task is to escape from a series of levels, negotiating your way through electrified floor panels, laser beams, robot monsters and other things that would make you wish you had kept up with your monthly BUPA payments after all.

To complete each level you need to make your way to the exit. But it's not as straightforward as all that. Oh no, not by a long chalk sonny Jim. 'Cos those laser beams and other assorted obstacles have been placed in exactly the right place to make your task very difficult indeed. You need to sit down and think things through.

The electrified floors can be switched off, but, of course, the switch that does this is hidden in all sorts of difficult-to-reach places. A common obstacle are laser beams. To get past these you need to interrupt the path of the beam with an object so that you can walk through unscathed.

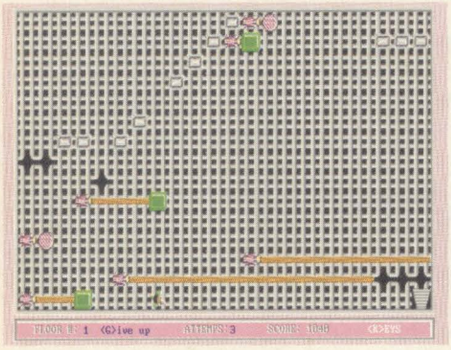
You do this by pushing blocks around the screen. There are two types of blocks; ones that slide across the screen until they hit another object where they stop, and others that only move a bit at a time even when you apply constant pressure to them.

The graphics, seen from above, are a little on the simple side, but serve their purpose reasonably enough and it's clear what everything does (after a little bit of experimentation and lots of getting yourself killed, that is).

There are a total of 40 levels in each game. You can tackle them in any order you choose. Now, call me stupid if you like, but the puzzles are tricky little beggars right from the offset. OK, you'd expect level 40 to be nigh on impossible, but even the first couple of levels will give you more than a few problems. Whatever happened to progressive difficulty, eh?

Still, that does mean the game is challenging right from the word go. It'll take a while to work your way through even the earliest of levels, but with a little perseverance and a lot of brain strain you'll make it in the end. And if you get stuck on a particular level, you can always quit, try another one, and go back at a later date.

40 levels is a lot and you certainly won't be finishing either game in a hurry (and when you do you can always get hold of the other disk). The puzzles are devilishly difficult and, though based on only a few building blocks, hold plenty of challenge. A word of warning though: play it too much and your brain will explode.



The puzzles have been solved, we're on our way to freedom. Nothing can stop us now...

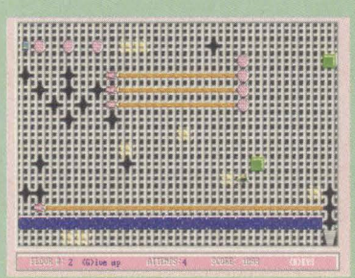
IN BRIEF

Type	Shareware
Registration fee	$12 (£7)
Author	William Soleau
Requirements	640K • EGA
Disk number	C1542/C1548
Available from	Testware UK Ltd, 46 The Avenue, Harrogate, Yorkshire HG1 4QD ☎ 0423 886415

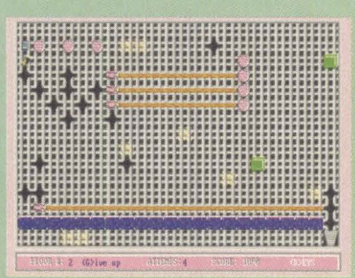
PC 82%

Easy does it – your step-by-step guide to solving a level of Bolo Adventures

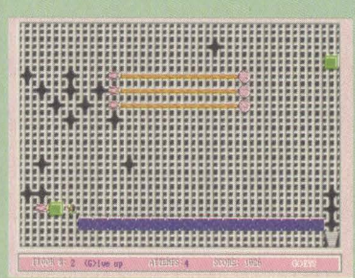
Uh oh, this looks like a bit of a toughie. But before you storm on in, take a minute or two to put the problem into perspective. Break them down into simpler tasks



Firstly we need to get through the laser beams to get to that switch. Push the three barrels into place using the green block to manoeuvre them into position



The switch gets rid of all those nasty electrified floors. Now we need to cross the water. Push all the barrels into it; they'll float to the ends and create a land bridge



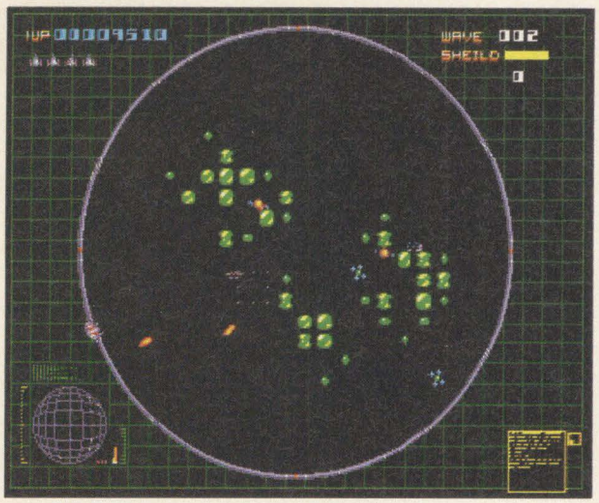
All that reamins to do is cut off the bottom laser beam. Push the green block into it and right along to left. Now it's a simple case of skirting past the river and we're home!

Microbes

Deadly microbes threaten to affect the atmosphere and destroy all life as we know it. The only thing for it is to send in a miniaturised attack craft to destroy the deadly viruses before it's too late.

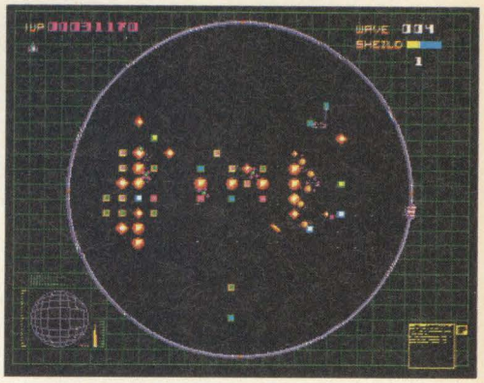
And muggins (that's you, buddy) is at the controls. The microbes are contained within a circular area and duplicate themselves at an alarming rate. You have to blast the cells away until the plague disappears from the screen for once and for all.

Every time you hit a microbe debris appears around it, making the job of cleaning up not an easy one. In addition, as well as multiplying, the microbes release various organisms which move towards the outside of the circle. Should they reach it then you lose a life. Not everything that comes from the centre is bad, though. Some are little bonusettes which, when shot, give you such goodies as rapid fire or destroy all the nasties.



Yuk! Those pulsating green blobs are threatening life as we know it!

You've got to keep the firing rate constant, or else the virus will get out of control. Your ship moves around the perimeter of the circle under joystick control, and fires towards the centre. Once you've destroyed everything on-screen, the next level pits you against an even deadlier batch of viruses. Eeek, I want me mam!



Things get pretty colourful in later levels. They're just as dangerous, though, so take care for the kids' sake

It's important to keep the growth in check – let it run away with itself and you'll have a difficult job keeping it under control again. It's a constant battle trying to get the viruses in manageable proportions while ensuring that nothing reaches the vulnerable outer rim.

The presentation is slicker than a 300ml pot of Brylcreem. The ship moves around the edge of the scanner beautifully, keeping at the perfect angle in relation to the circular shape. The graphics are small but well-drawn and fit in well with the nature of the game. In the corners of the screen scanners and readouts are constantly updated; they don't actually mean anything, but add to the overall polish.

Once you get down to it, though, it's not overly difficult, and you may well find that you've cycled through all the levels after a couple of plays. In fact, the playability is a bit lacking; there's a lot of action on screen, but keep your finger on the fire button and you'll soon cut them down to size. Still, it should keep you amused while you're fighting off your summer cold.

IN BRIEF

Type	Shareware
Registration fee	£3
Author	Vision Software
Requirements	1Mb
Disk number	1749

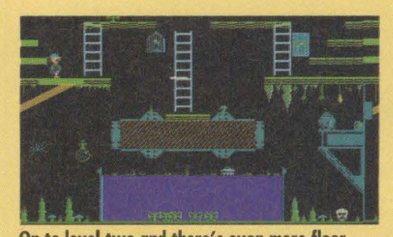
Available from
17-Bit Software, 1st Floor Offices, 2/8 Market Street, Wakefield WF1 1DH
☎ 0924 366982

AMIGA 78%

Clod Hopper

Your girlie's gone walkies again, this time she's wandered into an abandoned uranium mine, and as usual it's up to you to sort the mess out and rescue the daft old trout. Personally, I reckon you're better off without her. She's dead ugly and smells, but love is blind, or so they say.

As you'd expect (in computer games, at any rate) the radioactivity from the mine has created all sorts of mutant monsters that are gonna make things none too easy. These roam around the platforms and are deadly to the touch – most of the time. Sometimes they turn into ghosts, and can then be leapt on to be killed.

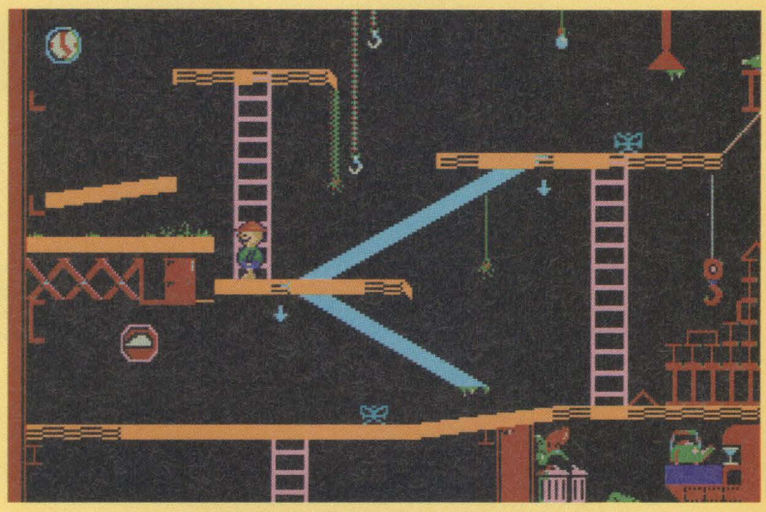


On to level two and there's even more floor painting to be done. Why he didn't hire a firm of professionals I'll never know

To get through each level, you have to paint all the platforms so that they are a solid colour. Don't quite know what for, but who are we to reason why? This involves walking all over them. Once you've covered every inch of on-screen platform you zip off to the next level. It's not necessary to kill all the baddies to do this, so if you're full of the joys of spring and feel like being nice you can be.

For bonus points you can pick up the giant tools that are scattered around. But don't waste too much time collecting them because you only have a limited amount of oxygen in each cave. This ticks down as you play, so you can't dilly-dally around.

It's platform-based, and there is a series of ladders and slides by which you ascend and descend to higher and lower platforms. It can be a little tricky getting on to the ladders at times as you have to be lined up with pixel-perfect precision. Bloody annoying, actually.



What a clod. If you will go around abondoned uranium mines, then you deserve all you get

Clod Hopper is based on the very earliest of platform games, and while it may provide a little nostalgia value, its gameplay is well tired, and about ten years out of date.

You'll get a few hours of fun out of the game, but it's a pity that Budgie's 100th game in the Singles range isn't one of the company's best.

IN BRIEF

Type	Licenceware
Price	£2.95
Author	Gary Wheaton
Requirements	512K

Available from
Goodman Enterprises, 16 Conrad Close, Meir Hay Estate, Longton, Stoke-on-Trent ST3 1SW
☎ 0782 335650

ST 70%

LIVEWIRE P.D.©

LIVEWIRE PD (Z02)
RISCA
PO BOX 161, NP16Y
Tel: (0633) 615880
Keith Saunders Prop.

PD PRICES
1 disk £1.25
10 & over
£1.00 each
Postage 50p UK

Please note: This is only a small proportion of P.D. that we stock for the Amiga & ST! For a full list please send a stamped addressed envelope and a blank disk to the above address.

AMIGA GAMES

Tennis (Meg)
Lemmingoids
Skoda Challenge
Mission X (Raid 2!)
Twintris
Super Twintris
The Simpsons
Wacko in Wonderland
Dragon Tiles
Pseudo Cop
ST Bash
Llamatron
Chainsaw Death
Jumpy
Revenge of the Mutant Camels
Numpty and the Alien Invaders
Jetman
Master of the Town
Tank (Meg)
Card Sharp
Klondike
Yahtzee

AMIGA DEMOS

Hardwired
Mental Hangover (by Scoopex)
Paradise (by Genesis)
Dexion Megademo (by Dexion)
Vision Megademo (by Vision)
Ego Trip (by TAS)
Silents Megademo (Meg)
Budbrain Megademo 1 (2) (18)
Dragons Megademo 1 (by Dragons)
Mega Demo 2 (by End of Century 1999)
Giants Megademo 1 (by Giants)
It Megademo (by It)
Piranah's Megademo (by The Piranahs)
Digital Innovation (by Anarchy)
Neverwhere (by Crionics)
Rebels Megademo (by Rebels)
Stealthy Maneuver (by Aerotoons)
Walker Demo (1Mb version)
Fillet the Fish (The Jester Brothers)
Zetaniks (by Quartex)
Batman the Moviesetter Movie
The Addams Family
AcidHouseMegamixTrip Disk
The Iraq Demo (by The Animators)
Sleeping Bag Demo (by Horizon)
Total Recount (Semtex)
Ooh Crikey It's Obscene V (2) (18)
Mike Tyson's Knockout Disk
Billy Connolly in Concert (2) (18)
Headless 90 (Miracle)
Total Destruction (by Crionics)
Operation Vark (Dark Future)
The Acid Demo (The Outsider)
Revenge (Fraxion) (18)
Voyage (Razor 1911)
Phenomena (Phenomena)
Safe Sex (by The Web Inc)
Stag 3 (18)

ATARI ST GAMES

Quik & Silva (Brill!)
International Soccer
Manager
Llamatron
Coltris
Klatrix
Grav
Checkers
Wall Street
Money
Entombed
Nova
Rockfall
Mission Elevator
Domain
Blast
Stonebreaker
Robotz
Star Battle
Fuzzball
Hotwheels & Editor
Parabellam
Ayatollah Invaders

COMPILATIONS

Bellum/Operation GristleFridge
Deeplair / Atoms / Invaders from Space
Breakanoid/Brickyard

DEMOS

Punish your Machine (by The Union) (2)
Teminator 2 Demo
XTC Demo (by The Alliance)
Skid Row Demo (by The Alliance) (2) (Meg)
Ripdis Megademo (by Next)
Dark Side of the Spoon (by ULM)
Full Screen Demo (by The Galtan Six)
Electra Demo (by Electra) (Meg)
Double Doozer (by Chaos)
Lightning Demo (by The Pendragons)
Bloodsucker Demo (by ACF)
Dragons Lair Demo (by The I.R.S.) (2)
Cuddly Demos (by The Union)
What The Heck Demo (by The Union)
So What Demo (by The Union)
Overdrive Demo (by Phalanx)
Euro Demo (by The Overlanders)
Syntax Terror (by The Union)
Fish & Chips Demo (by Sewersoft)
Tec Demo (by Empire)
Life's a Bitch Demo (by The Lost Boys)

KEY
(meg) requires 1Mb
(2) Two disks
(SS) single sided disk

All orders should be dispatched within 24 hrs. Please add 50p towards postage and packaging. Please make all cheques or postal orders payable to: Livewire.
Livewire regrets that at present credit cards will not be accepted.
If you require info on any product sold by Livewire please do not hesitate to phone Keith on (0633) 615880 anyday between 9am and 10pm.

RUST PUBLIC DOMAIN SOFTWARE FOR THE ATARI ST

WHY BUY SPACE? When you can buy from **RUST.**
All the disks we sell contain on average 642Kb of Top quality software. Pick your own programs, and we can push this average up to 1275Kb of software.
(All a la carte disks come as self extracting arch files.)
Disk Packs (642Kb) have been carefully constructed to provide an entire **FUNCTION**, and come with **FULL** documentation. (Not a rag bag of similar programs on a half full disk).
For further details on software, hardware, foreign shareware registration and all other services write to:

RUST PUBLIC DOMAIN
361 Ordnance Road, Enfield Lock, Middx EN3 6HF
TEL: (0992) 717 828

P.C. SHAREWARE GAMES SETS

P.C. GAMES PROGRAMS FROM ONLY 10p EACH!

From the numerous shareware and public domain games and leisure programs available we have selected and tested the finest and compressed them into three new collections, updated regularly.

GAMES COMPENDIUM 1 (100 of the best PC games)

Titles include: Dark Ages, Commander Keen, EGA Bomb, Capt Comic, Joust, VGA Sharks, Pharaohs Tomb, Battleship, Scrabble, Global, Warfare, Gravewars, Dominoes, VGA Pinball, 3D Tetris, Seahunt, Snarf, Bananoid, Eatit, Breakout, Bloxter, 3D Chess, VGA Roulette .... dozens more adventure, arcade, board,card, word and strategy games.

GAMES COMPENDIUM 2 (Another 100 quality games)

Titles include Wizards Lair, Hurkle, Kursk, 3D Startrek, Condo, Bass Tour, Tron,Golden Wombat, Monuments of Mars, PC Railroad, Sorry, Frigate, Antix, Casino Games, Dungeons of Doom, Shooting Gallery, Viking, Ninja ....and many, many more

GAMES COMPENDIUM 3 (Yet another 100 great games)

Arctic Adventure, Duke Nukem, Aliens Laughed,Moraff's World/Pinball/Superblast, Popcorn,Kroz II, Dracula in London, Groundwar, Picture Puzzle, lots of joke programs ..and much more!

Each set comes on 12 5.25" or 6 3.5" disks and has its own fully descriptive 6 page leaflet.

Prices: Buy one set for £12, two sets for £22, all 3 sets for £30.

SHAREWARE CONNECTIONS Tel: (041) 7751937
49 BOGHEAD ROAD, KIRKINTILLOCH, GLASGOW G66 4ED

INCORPORATING HORIZON HORIZON HORIZON SOFTWARE HORIZON

ESSEX COMPUTER SYSTEMS

EXPERIENCE THE DIFFERENCE.. WITH A GUARANTEE OF NO VIRUSES, 1ST CLASS PROOF POSTED ORDERS, POST FREE ADDRESS FOR SENDING ORDERS, ITEMISED VAT INVOICE, SAME DAY DESPATCH, FULL TIME STAFF FULLY EXPERIENCED IN AMIGA SOFTWARE, OPEN UNTIL 7PM MON TO THURS, CREDIT CARD ORDERS WELCOME.

P S D

CO-FOUNDER OF THE PUBLIC DOMAIN STANDARDS FOR DISTRIBUTION ENDORSED BY COMMODORE UK

ALL SOFTWARE ADVERTISED HERE IS A500 PLUS COMPATIBLE .... MOST IS UNAVAILABLE ELSEWHERE

THE PACKS LISTED BELOW ARE PROFESSIONALLY LABELLED AND BOXED WITH COLOUR

HOME BUSINESS PACK 1

Contains Word Processor, Spell checker, Data base, Spreadsheet, personal finances etc.
3 Disks in set 1 which costs £4.99

HOME BUSINESS PACK 2

Contains an accounting package, virus killers, Printing & Font tools, typing tutor, disk copiers etc.
3 Disks in set 2 which costs £4.99
BUY SET 1 & 2 AND SAVE £1.00 ONLY £8.99

VIDEO/AUDIO/DISK PACK

Contains programs for keeping record of and printing labels for Cassettes Videos & disks etc.
2 Disks in set which costs £3.99

PROFESSIONAL CLIP ART PACKS

The following packs have been produced by scanning images in 300 &400 DPI Mono, Giving the best possible quality
THE FOLLOWING CLIPART IS NOT PD AND CANNOT BE DISTRIBUTED FREELY

SCHOOL CLIPART	£2.50	BABY CLIPART	£2.50
NAVAL CLIPART	£4.00	SPORT CLIPART	£4.00
OLD FASHIONED BANNERS	£8.00	CHURCHES & BIBLICAL	£4.00
HOUSE & ARCHITECTURE	£2.50	AFRICAN ANIMALS	£2.50
MEDICAL & DENTISTRY	£4.00	FARM & COUNTRYSIDE ANIMALS	£2.50
SAILING SHIPS	£2.50	ARCTIC ANIMAL	£2.50
OFFICE IMAGES	£2.50	HUNTING DOGS & WILD CATS	£2.50

EDUCATIONAL GAMES PACK

Contains KidPaint, Storyland 2, Shapes. 3 educational games for children aged 5-10
3 Disks in set which costs £4.99

HOME HELP & FINANCE PACK

Contains bank and home finance managers and shopping databases etc
1 Disk set which costs £2.25

ANIMATION SAMPLES PACK

Contains the best animation sequences available on the A500+ complete with players. Animations include, 2 Much 3D, The Fly, Pepsie, Hagen animation, Bounce, Plus others.
3 Disk set which costs £4.99

MEGADEMO'S PACK

Contains 3 of the Best MegaDemo's available on the Amiga Plus.
Demo's in this pack are, Phenomena Enigma, Alpha & Omega, and Badgekiller MegaDemo
3 Disk set which costs £4.99 Buy Animation Samples Pack & Megademo Pack for £8.99

Send your orders to
E.C.S. FREEPOST, BASILDON, ESSEX SS16 4BR
No stamp is necessary • Credit card orders phone 0268 - 553963
CATALOGUE DISKS COST 75 PENCE/1ST CATALOGUE FREE ON ORDERS OVER £6.00
PLEASE ADD 50 PENCE PER ORDER FOR P&P

cont. from p43

Lobotomy Invaders

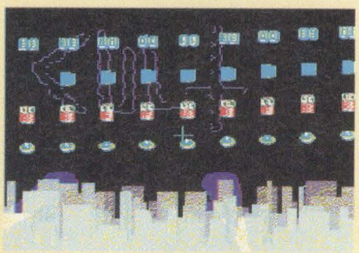
Quick! Hide, under the kitchen table! We're under attack from hordes of alien beings who most certainly aren't of this earth. They're the lobotomy invaders, and should they reach this green and pleasant globe, no doubt they're going to do something very unpleasant to your skull.

Lobotomy Invaders is like a cross between *Space Invaders* and *Missile Command*. The aliens swoop down in waves, lower and lower all the time. You pick them off with crosshairs and have to deplete the lot before they get too low. If they do it's all over. Manage to kill them and it's on to the next level with another wave to face.

The game makes use of the STE's full-screen scrolling capabilities, and you can move your sights around in an area many times larger than the screen, which scrolls smoothly and rapidly to keep up.

Every four levels there's a maze-based sub-game that you have to negotiate for bonus points. It seems a little disjointed from the main plot but still, it provides a little variety.

Technically it's good, with the hardware scrolling and music taking advantage of all the extras the STE has to offer. The problem is, frankly, it's a little bit boring...



***Lobotomy Invaders* makes impressive use of the STE's in-built hardware**

IN BRIEF

Type	Shareware
Registration fee	Discretionary
Author	Roggie
Requirements	512K • STE only
Available from	Caledonia PDL, 250 Oldtown Road, Hilton, Inverness, IV2 4PT ☎ 0463 225736

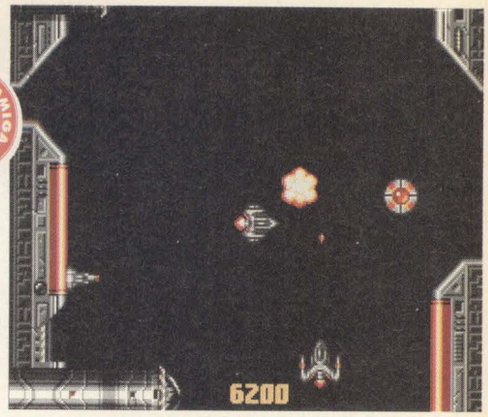
ST 72%

Serene III

It's time to take to the skies again, to do battle with alien hordes and give 'em a taste of your laser cannon. Yep, it's shoot-'em-up time, and the lone ship to take on the interstellar masses this time is Serene III. Best of luck.

The game has been produced with the *Shoot-'Em-Up Construction Kit*, and though it bears the trademarks of being written with the utility, it isn't actually too bad an effort. It has quite a nice introductory screen and the backdrops and aliens are metallic-looking and well-drawn in greys and reds. The scrolling's smooth enough and the pace is quite fast. It's tough enough to keep you on your toes with plenty of danger to shy away from. The enemies move quite quickly, so you'll have to be a bit nifty with the old joystick if you're to win through.

There are no bonuses or pick-'em-ups to boost your firepower so you're stuck with the rather weedy pea shooter which you're armed when you enter the fray. *Serene III* isn't particularly original and is about as simple as you can get for this type of game. It's put together well enough, looks pretty and will keep you going for a couple of plays, but that's about it.



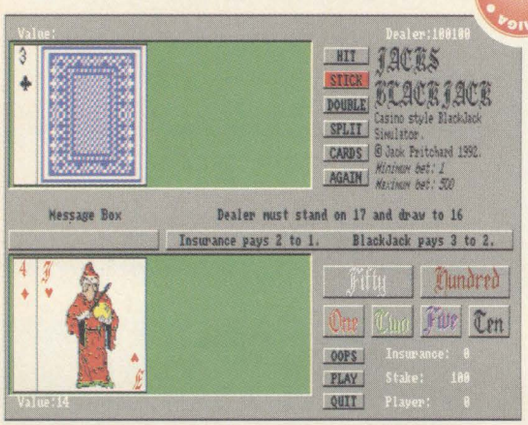
Adventures at the edge of the galaxy in *Serene III*

IN BRIEF

Type	PD
Requirements	512K
Author	Fez Software
Disk number	G264
Available from	NBS, 1 Chain Lane, Newport, Isle Of Wight PO30 5QA ☎ 0983 529594

AMIGA 57%

Jack's Blackjack



Lose a fortune at Blackjack, without being any the worse off

Gambling, it's a mug's game. The temptation to win all that money is one thing, but you can go from riches to ruin all for the lure of few hands of cards in a smokey bar.

Playing on the Amiga has no such drawback as the money is all in the computer's mind. Then again, if you don't have the prospect of ever winning anything, it makes it all a bit pointless.

Blackjack is the game on offer here. The program opens with a nice enough front end, and all playing activities are carried out with a couple of mouse clicks.

It's you against the computer; only one player can take part at any time so you can't crowd round with a few of your mates. The computer always deals, and plays rather a simplistic game. One rather annoying aspect of is that you place your bets before you see your first card, taking out any skill factor to your betting. *Jack's Blackjack* looks nice enough, but, unfortunately, the playability stinks. Back to the Casino.

IN BRIEF

Type	PD
Author	Jack Pritchard
Requirements	512K
Disk number	G263
Available from	NBS, 1 Chain Lane, Newport, Isle Of Wight PO30 5QA ☎ 0983 529594

AMIGA 39%

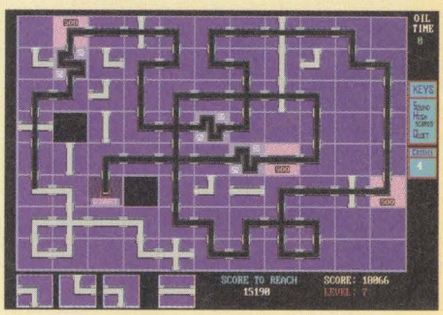
Oilcap

The oil's flowing and there's nowhere for it to flow to. There's only one thing for it: build a pipeline to contain the relentless ooze and prevent an ecological disaster (or something).

You have a little bit of a head start to begin construction. Unfortunately the pipes you get are in any old order, and you have to lay them down as best you can, in the hope that you'll get the vital pieces you need to make the links before it's too late. You can see the next few pipe sections you have coming to you, but have to lay them down the order they appear. There are straights, corners and cross pieces. If you manage to construct a long enough continuous pipe from these pieces before you run out of steam (or, to be more accurate, pipeline) and you'll be through to the next level.

Sounds familiar? Yep, this is a *Pipemania* clone, but it does have a couple of additions to give it a (very slight) twist of originality. These are mainly in the form of wiggly pipes that slow down the flow and what's more, give you an extra 50 points.

It's not outstanding, but you'll certainly be able to while away a few hours of pipe laying.



Contain that oil slick by building a network of pipes

IN BRIEF

Type	Shareware
Registration fee	$12 (£7)
Author	William Soleau
Disk number	C1551
Requirements	640K • EGA
Available from	Testware, 46 The Avenue, Harrogate North Yorkshire ☎ 0423 886415

PC 70%

cont. from p45

The best of the rest • The best of the rest • The best of the rest

No, guv. Straight up. You can get PD and shareware games that are every bit as good as things you'd pay over £30 for. Don't believe us? Then here's the proof – the top-scoring games from our first six issues. Order any of them and you won't be disappointed. Would we tell porkies...?

PC

❶ Commander Keen 4 — Issue 3 96%

PSA, 10 High Street, Tadlow, Royston, Herts SG8 0ES ☎ 0767 23302

The second series of *Commander Keen* games. Can you save the galaxy single-handedly? Great graphics and loads of surprises.

❷ Duke Nukem — Issue 2 94%

PSA, 10 High Street, Tadlow, Royston, Herts SG8 0ES ☎ 0767 23302

Huge platform game. Enter the evil dictator's fortress and teach him a lesson he'll never forget. Plenty of things to see and destroy.

❸ Paganitzu — Issue 4 92%

PSA, 10 High Street, Tadlow, Royston, Herts SG8 0ES

Multi-level all-action thrills inside a pyramid. Collect diamonds and avoid venom-spitting snakes. Great graphics, great puzzles.

❹ Hugo's House of Horrors — Issue 1 92%

Classic Shareware, 23 Fieldhead Close, Pontefract WF8 2ED ☎ 0977 794876

Brilliantly funny adventure game where your animated character mimics your actions on-screen as you type them in. He walks, he talks and he dies a lot too.

***Hugo*: gothic horror in a graphical adventure form**

❺ Monuments of Mars — Issue 2 88%

PSA, 10 High Street, Tadlow, Royston, Herts SG8 0ES ☎ 0767 23302

Arcade game set on the red planet that's packed with puzzles. You'll die plenty, but there's unlimited lives so you can keep on going for ever...

❻ Domination — Issue 6 85%

Testware, 46 The Avenue, Harrogate, North Yorkshire ☎ 0423 886415

A tiles-on-a-grid puzzle in which one move can lead to a massive chain reaction.

❼ Captain Comic — Issue 2 85%

Eigen PD, PO Box 722, Swindon SN2 6YB ☎ 0793 611270

This is one big game. Your superpowers are limited, but there are lots of things to pick up to make them better. Cartoon graphics add to the atmosphere.

❽ Ground Wars — Issue 1 85%

Advantage, 56 Bath Road, Cheltenham, Glos GL53 7HJ ☎ 0242 224340

Two-player warfare game based in the Gulf. You have to take apart your opponent's tanks and military targets before they do the same to you.

❾ Fiddle — Issue 6 84%

SMS Shareware, 19 Corshalton Road, Camberley, Surrey ☎ 0246 681864

You have a set of geometric shapes that have to be fitted together to form a square. 26 different puzzles, a time limit and odd scoring system all add to the fun.

❿ Crystal Caves — Issue 4 84%

Shareware Marketing, 3a Queen Street, Seaton, Devon ☎ 0297 24088

You have to visit several diamond-rich planets and stuff your pockets with jewels while avoiding loads of nasties. Good graphics and well-defined sprites.

ST

❶ Llamatron — Issue 1 96%

Llamasoft, 489 Mount Pleasant, Tadley, Hants

Manic blast with hundreds of levels and even more llamas! Kill all manner of unlikely enemies to progress through the levels. It's weird, wacky and, quite simply, wonderful!

❷ Ozone — Issue 3 94%

Goodman Enterprises, 16 Conrad Close, Meir Hay Estate, Longton, Stoke-on-Trent ST3 1SW ☎ 0782 335650

Brilliant-looking arcade game with playability to match. Can you get your round-but-cute blob to the exit safely? Oh-so-cute graphics complement the gameplay.

❸ Douglas Rockmoor — Issue 1 91%

LAPD, 80 Lee Lane, Langley, Heanor, Derbys DE7 7HN ☎ 0773 761944

Boulderdash clone that's more fun than Christmas. It's slightly spoiled by slow scrolling that doesn't keep up with the action, but what the heck, it's fun!

❹ Penguins — Issue 4 90%

Goodman Enterprises, 16 Conrad Close, Meir Hay Estate, Longton, Stoke-on-Trent ST3 1SW ☎ 0782 335650

A mixture between *Pipemania* and *Lemmings*, you have to guide hapless penguins to the exit by dropping obstacles or bridges in their path.

❺ Match It — Issue 5 89%

New Age PDL, 30 Anderson Estate, Lower Road, Hockley, Essex SS5 5NG

Mah Jong variation number 2,089, but this one has a couple of neat twists and a superb visual presentation, making it one of the best, and the most addictive.

❻ The Mystic Well — Issue 2 88%

Riverdene, 30a School Road, Tilehurst, Reading RG3 5AN ☎ 0734 452416

Dare you dare the depths of *The Mystic Well*? 3D hack 'n' slash game, in the style of the full-priced classic *Dungeon Master*, that will keep you going for ages.

Plenty of monsters around every bend in *The Mystic Well*

❼ International Cricket — Issue 6 87%

Riverdene, 30a School Road, Tilehurst, Reading RG3 5AN ☎ 0734 452416

Great little cricket sim which pits eight top international teams against each other in a series of day and test matches. Unusual but handy joystick/mouse control combination.

❽ Dizzy Lizzy 2 – A Winter's Tale — Issue 4 86%

Caledonia PDL, 250 Oldtown Road, Hilton, Inverness ☎ 0463 225736

A *Boulderdash*-esque puzzle game where you have to control a small round blob – the eponymous hero – and find crackers, pressies and Christmas pud.

❾ Revenge of the Mutant Camels — Issue 4 84%

Merlin, 11 Grange Close, Minchinhampton, Glos GL3 9DF ☎ 0453 882793

The latest creation from weirdo Jeff Minter, *Mutant Camels* is an all action romp very much in the blast-everything vein of *Llamatron*.

❿ Valgus² — Issue 2 84%

Caledonia PDL, 250 Oldtown Road, Hilton, Inverness IV2 4PT ☎ 0463 225736

Tetris takes on a new edge, well, four edges, actually. Played around a central square, the blocks fall towards the centre of the screen. You form rings instead of lines.

Amiga

❶ Llamatron — Issue 1 96%

Llamasoft, 489 Mount Pleasant, Tadley, Hants

The classic ST game is also available on the Amiga. Blast coke cans, telephones, toilets and stranger things with your death-spitting llama.

❷ Hypnotic Land — Issue 2 94%

Déjà Vu, 25 Park Road, Wigan, Lancashire WN6 7AA

Put the correct-coloured balls into the right cups as they roll down a conveyor belt. Starts off easy, but soon gets very tricky indeed. It's bodacious, dudes!

❸ Super Amidash — Issue 2 94%

Amiganuts, 169 Dale Valley Road, Holybrook, Southampton SO1 6QX ☎ 0703 785680

Boulderdash clone that has everything the original had and a lot more to boot. A lot of the levels are the same, but there's plenty of new ones to challenge you. Unmissable!

❹ Lemmingoids — Issue 6 91%

GSPD, 46 Weller Drive, Camberley, Surrey GU15 2YA

Lemmings meets *Asteroids*. Blow up the flying rodents using an umbrella. Great graphics, great gameplay, great comic appeal. Do not miss it.

❺ Revenge of the Mutant Camels — Issue 5 91%

Llamasoft 49 Mount Pleasant, Tadley, Hants ☎ 0734 814478

Camels and goats do battle with phone boxes and mad Jeff Minters. It's mad, it's loony and it's action all the way in the latest from Llamasoft.

❻ Cabaret Asteroids — Issue 1 90%

Software Expressions, Hebron House, Soin, Bedminster, Bristol ☎ 0272 637634

Carbon copy of possibly one of the finest arcade games ever. Blast the rocks to pieces or they'll do the same to you. More playability than many more modern games.

❼ Amigoids — Issue 1 90%

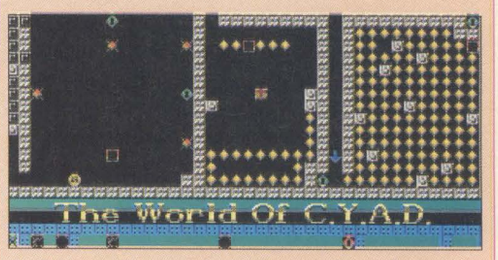
Software Expressions, Hebron House, Soin, Bedminster, Bristol ☎ 0272 637634

Another *Asteroids* clone. Just as playable but with souped-up graphics and a few new twists. The only problem is: which one do you choose?

❽ Cyad — Issue 1 90%

Déjà Vu, 25 Park Road, Wigan, Lancashire WN6 7AA

Not technically brilliant, but it's one of those games that just works. Gobble all the diamonds on the screen to complete the levels.



***Cyad*: tiny graphics, a simple idea, but tons of gameplay**

❾ Seven Tiles — Issue 1 90%

NBS, 132 Gunville Road, Newport, Isle of Wight PO30 5LH ☎ 0983 529594

Fast and furious footie sim set in the next century. Pretty much ignores all the rules of conventional soccer, which is probably why it works so well.

❿ Bug Bash — Issue 1 88%

Amiganuts, 169 Dale Valley Road, Holybrook, Southampton SO1 6QX ☎ 0703 785680

Picking up litter can actually be fun as *Bug Bash* proves. Tidy up the garden, but watch out for the over-sized insects. Very good looker with mega-cute graphics.

CITIZEN

ALWAYS A GOOD IDEA

Silica presents some great offers on the award winning range of high quality matrix printers from Citizen. Each Citizen printer is built in the UK to exacting standards, ensuring superb reliability and output. Our confidence in Citizen's quality is such that we are pleased to include a 2 year guarantee with every printer. Plus, if you buy a Citizen printer (not inkjet) from us, we will give you the Silica Printer Starter Kit (worth £29.38), ***FREE OF CHARGE!***

FREE DELIVERY
Next Day - Anywhere in the UK mainland

FREE STARTER KIT
Worth £29.38 - With every Citizen printer (excluding inkjet) from Silica.

2 YEAR WARRANTY
Silica offer a 2 year warranty (including the printer head) with every Citizen printer from Silica.

WINDOWS 3.0
Free Windows 3.0 driver. Included with the Silica Starter Kit.

FREE COLOUR KIT
With every Prodot 9 and Swift 24e printer.

FREE HELPLINE
Technical support helpline open during office hours.

MADE IN THE UK
Citizen printers are manufactured to high standards.

DOT MATRIX INK JET AND NOTEBOOK PRINTERS

LOW PRICE 9 PIN PRINTER

144 CPS **80** COLUMN

- *Citizen 120D+ - 9 pin - 80 column*
- *144cps Draft, 30cps NLQ*
- *4K Printer Buffer + 2 Fonts*
- *Parallel or Serial Interface*
- *Graphics Resolution: 240 x 240dpi*
- *Epson and IBM Emulation*
- *Pull tractor & bottom feed*
- *FREE Silica Printer Starter Kit*

£115
+VAT= £135.13 ref: PRI 2120

RRP £199
SILICA STARTER KIT £25
TOTAL VALUE: £224
SAVING: £109
SILICA PRICE: £115

The Citizen 120D printer comes supplied with a parallel interface as standard. If you require a serial interface instead, please state ref: PRI 2125 when placing your order with Silica.

9 PIN PRINTERS

FREE COLOUR KIT

300 CPS **80** COLUMN

- *Citizen Prodot 9 - 9 pin - 80 column*
- *300cps Draft, 60cps NLQ*
- *8K Printer Buffer + 3 Fonts*
- *Parallel Interface*
- *Graphics Resolution: 240 x 240dpi*
- *Epson and IBM Emulation*
- *FREE Colour Kit*
- *FREE Silica Printer Starter Kit*

RRP £189
COLOUR KIT £41
SILICA STARTER KIT..... £25
TOTAL VALUE: £255
SAVING: £66
SILICA PRICE: £189

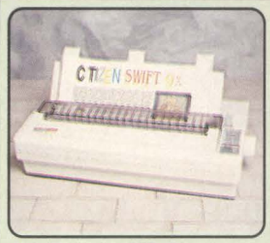
£189
+VAT= £222.08 ref: PRI 2319

192 CPS **80** COLUMN

- *Citizen Swift 9 - 9 pin - 80 column*
- *192cps Draft, 48cps NLQ*
- *8K Printer Buffer + 3 Fonts*
- *Parallel Interface*
- *Graphics Resolution: 240 x 240dpi*
- *Epson and IBM Emulation*
- *Colour Option available*
- *FREE Silica Printer Starter Kit*

RRP £239
SILICA STARTER KIT £25
TOTAL VALUE: £264
SAVING: £75
SILICA PRICE: £189

£189
+VAT= £222.08 ref: PRI 2209



192 CPS **136** COLUMN

- *Citizen Swift 9x - 9 pin - 136 column*
- *192cps Draft, 48cps NLQ*
- *8K Printer Buffer + 3 Fonts*
- *Parallel Interface*
- *Graphics Resolution: 240 x 240dpi*
- *Epson and IBM Emulation*
- *Colour Option Available*
- *FREE Silica Printer Starter Kit*

RRP £329
SILICA STARTER KIT £25
TOTAL VALUE: £354
SAVING: £105
SILICA PRICE: £249

£249
+VAT= £292.58 ref: PRI 2309

24 PIN PRINTER

PRINTER + SOFTWARE + COLOUR

- *Citizen Swift 24e - 24 pin - 80 column*
- *216cps Draft, 72cps LQ*
- *8K Printer Buffer + 6 Fonts*
- *Parallel Interface*
- *Graphics Resolution: 360 x 360dpi*
- *Epson, IBM & NEC P6 Emulation*
- *FREE Colour Kit*
- *FREE Silica Printer Starter Kit*
- *FREE Lotus AMI 1.2 Word Processor and DTP package*
- *FREE Adobe Type Manager V1.15*

Lotus + Adobe software is for PC only on 3½" disk

RRP £369
COLOUR KIT £38
SILICA STARTER KIT £25
LOTUS AMI 1.2 WP/DTP PACKAGE ... £95
ADOBE TYPE MANAGER V1.15 (Fonts) £79
TOTAL VALUE: £606
SAVING: £337
SILICA PRICE: £269

£269
+VAT= £316.08 ref: PRI 2544

24 PIN PRINTERS

192 CPS **80** COLUMN

- *Citizen 224 - 24 pin - 80 column*
- *192cps Draft, 64cps LQ*
- *8K Printer Buffer + 4 Fonts*
- *Parallel Interface*
- *Graphics Resolution: 360 x 360dpi*
- *Epson and IBM Emulation*
- *Colour Option Available*
- *FREE Silica Printer Starter Kit*

RRP £269
SILICA STARTER KIT £25
TOTAL VALUE: £294
SAVING: £95
SILICA PRICE: £199

£199
+VAT= £233.83 ref: PRI 2484

192 CPS **136** COLUMN

- *Citizen Swift 24x - 24 pin - 136 column*
- *192cps Draft, 64cps NLQ*
- *8K Printer Buffer + 4 Fonts*
- *Parallel Interface*
- *Graphics Resolution: 360 x 360dpi*
- *Epson, IBM and NEC P6 Emulation*
- *Colour Option Available*
- *FREE Silica Printer Starter Kit*

RRP £489
SILICA STARTER KIT £25
TOTAL VALUE: £514
SAVING: £165
SILICA PRICE: £349

£349
+VAT= £410.08 ref: PRI 2574

INKJET PRINTER

360 CPS **80** COLUMN

- *Citizen Projet - inkjet - 80 column*
- *360cps Draft, 120cps NLQ*
- *50 Nozzle Head - Whisper Quiet 47dB(A)*
- *8K Printer Buffer + 3 Fonts*
- *Optional HP Compatible Font cards*
- *Parallel Interface*
- *Graphics Resolution: 300x300dpi*
- *HP Deskjet plus emulation*

RRP £496
TOTAL VALUE: £496
SAVING: £137
SILICA PRICE: £359

£359
+VAT= £421.83 ref: PRI 2090

NOTEBOOK PRINTER

64 CPS **80** COLUMN

- *Citizen PN48 Notebook Printer*
- *Non-impact Printing on Plain Paper*
- *53cps LQ - 4K Buffer + 2 Fonts*
- *Rear and Bottom Paper Loading*
- *Parallel Interface*
- *Graphics Resolution: 360 x 360dpi*
- *Epson, IBM, NEC P6 & Citizen Emulation*
- *Powered From Mains, Battery or Car Adaptor*
- *FREE Silica Printer Starter Kit*

RRP £325
SILICA STARTER KIT £25
TOTAL VALUE: £350
SAVING: £101
SILICA PRICE: £249

£249
+VAT= £292.58 ref: PRI 2100

FREE! STARTER KIT WORTH £29.38 INC VAT

This starter kit will help you to get you up and running with your new Citizen dot matrix or notebook printer when you buy it from Silica Systems.

- 3½" Disk - Amiga & ST Drivers
- 3½" Disk - Driver for Windows 3
- 2 Metre Parallel Printer Cable
- 200 Sheets of Continuous Paper
- 100 Continuous Address Labels
- 5 Continuous Envelopes

FREE! CITIZEN AMIGA PRINT MANAGER WORTH £14.95 INC VAT (LIMITED PERIOD ONLY)

The ultimate printer driver program for your Amiga, which dramatically enhances printed output. Provides drivers for all Citizen printers and replaces Amiga's normal printer preference system - printing is quicker, colours more vibrant, graphics less fuzzy. Easy to use, Print Manager is supplied with its own instruction manual. Main features include:

- Improved Image Smoothing
- Gamma/Colour Correction
- Image Scaling
- Colour Separation
- Reduces/Illiminates Banding

ACCESSORIES

SHEET FEEDERS
PRA 1200 1200 ..... £71.38
PRA 1215 124D/224/Swift 9/24 ..... £88.70
PRA 1228 124D/224/Swift 9/24 ..... £42.00

SERIAL INTERFACES
PRA 1189 1200+ £56.45
PRA 1209 Swift 9/9x/124D/224 ..... £32.25
PRA 1709 Swift 24/24x/24e £26.38

32K MEMORY EXPN
PRA 1753 124D/224/Swift 24 ..... £13.10

PRINTER STAND
PRA 1242 124D/224/Swift 9/24 ..... £24.03
PRA 1274 Swift 9X/24X £30.66

ORIGINAL RIBBONS
RIB 3520 120D/Swift 9 Black £2.91
RIB 3949 Swift 9/9x Black £7.15
RIB 3924 124D/Swift 24 Black £4.70
RIB 3936 224/Swift 9/24 Colour £15.63
RIB 3245 PN48 Single Strike £3.61
RIB 3346 PN48 Multi Strike £3.61

COLOUR KITS
PRA 1235 224/Swift 9/24/24e £35.25
PRA 1243 Swift 9x/24x £35.25

PN48 ACCESSORIES
PRA 1143 PN48 Battery £51.70
PRA 1155 PN48 Cable Extn ..... £ TBC
PRA 1162 PN48 Car Adaptor ..... £ TBC

Accessories prices inc. VAT & delivery

SILICA SYSTEMS OFFER YOU

- ***FREE OVERNIGHT DELIVERY:*** On all hardware orders shipped in the UK mainland.
- ***TECHNICAL SUPPORT HELPLINE:*** Team of technical experts at your service.
- ***PRICE MATCH:*** We normally match competitors on a "Same product - Same price" basis.
- ***ESTABLISHED 12 YEARS:*** Proven track record in professional computer sales.
- ***BUSINESS + EDUCATION + GOVERNMENT:*** Volume discounts available for large orders.
- ***SHOWROOMS:*** Demonstration and training facilities at our London & Sidcup branches.
- ***THE FULL STOCK RANGE:*** All of your requirements from one supplier.
- ***FREE CATALOGUES:*** Will be mailed to you with offers and software/peripheral details.
- ***PAYMENT:*** By cash, cheque and all major credit cards.

Before you decide when to buy your new printer, we suggest you think very carefully about WHERE you buy it. Consider what it will be like a few months after you have made your purchase, when you may require additional peripherals or software, or help and advice. And, will the company you buy from contact you with details of new developments and products? At Silica Systems, we ensure that you will have nothing to worry about. We have been established for over 12 years and, with our unrivalled experience and expertise, we can now claim to meet our customers' requirements with an understanding which is second to none. But don't just take our word for it. Complete and return the coupon now for our latest Free literature and begin to experience the "Silica Systems Service".

MAIL ORDER HOTLINE 081-309 1111

SILICA SYSTEMS

MAIL ORDER: 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX **Tel: 081-309 1111**
Order Lines Open: Mon-Sat 9.00am-6.00pm No late Night Opening Fax No: 081-308 0608

LONDON SHOP: 52 Tottenham Court Road, London, W1P 0BA **Tel: 081-580 4000**
Opening Hours: Mon-Sat 9.30am-6.00pm No late Night Opening Fax No: 071-323 4737

LONDON SHOP: Selfridges (1st Floor), Oxford Street, London, W1A 1AB **Tel: 071-629 1234**
Opening Hours: Mon-Sat 9.30am-6.00pm Late Night: Thursday until 8pm Extension: 3914

SIDCUP SHOP: 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX **Tel: 081-302 8811**
Opening Hours: Mon-Sat 9.00am-5.30pm Late Night: Friday until 7pm Fax No: 081-309 0017

To: Silica Systems, Dept PUDOM-0692-55, 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND INFORMATION ON THE CITIZEN RANGE

Mr/Mrs/Miss/Ms: ..... Initials: ..... Surname: .....

Address: .....

..... Postcode .....

Tel (Home): ..... Tel (Work): .....

Company Name (if applicable): .....

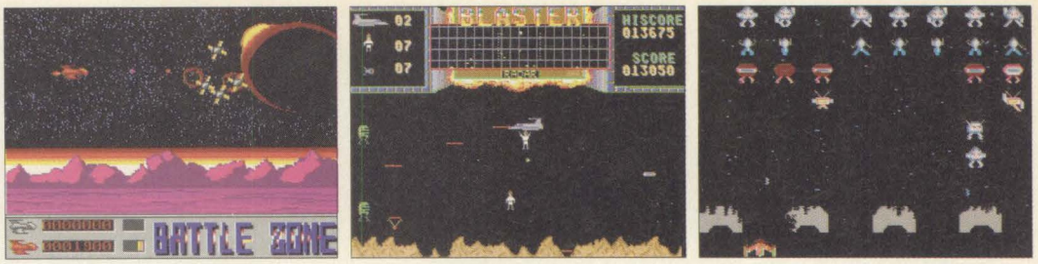
Which computer(s), if any, do you own? 55F

E&OE - Advertised prices and specifications may change - Please return the coupon for the latest information.

The Budgie top 100

Budgie has put the finishes touches the 100th game in its impressive Singles series of software. The range covers every conceivable type of computer game from adventures to *Space Invaders*. And, by golly gosh, here's a list of the whole lot...

1. **DAMONOID** – Camy Maertens. 20 planets have to be protected from Damonoid and its invading fleet...
2. **FOOTBALL 88** – Simon Rush. Soccer management game. Easy to play and very addictive
3. **BLITZ III** – Camy Maertens. Destroy the city before too much altitude is lost
4. **OTHELLO** – Jim Holmwood/STACK'EM UP by Raymond Donnelly. Implementation of the classic board game plus *Tetris* variant
5. **PRO DARTS** – Martyn Carr. Forget the pub – try this mouse-controlled darts sim instead
6. **DR BORIS** – Alex Dewdney. Defuse the bombs within the time limits or get blown to bits
7. **BALL ZONE** – Ian Grainger. *Arkanoid* clone, only better. Mouse-controlled and has many levels
8. **SPECULATOR** – Camy Maertens. Play the stock market. Based on real futures markets
9. **TYCOON** – Simon Rush. A mineral exploring game. Mines have different levels of profitability. Can you become the richest player through business acumen?
10. **MONEYSPINNER 1.2** – Jim Holmwood. Slot machine sim. Incorporates all the usual features: nudges, gambles, holds and more
11. **MAELSTROM** – Marvey Mills. Smooth vertical scrolling space shoot-'em-up
12. **ACE INVADERS** – Gary Wheaton. The definitive *Space Invaders*! Has everything the classic has
13. **ZENITH** – Gary Wheaton. Two-player space battle game. Poised at the edge of universe, the giant ships are set for battle. There can only be one winner...
14. **GOLDRUSH** – Mark Annetts/ZERPHOD – Ian Grainger. Platform puzzler and maze games
15. **PERILS OF PENFOLD** – Philip Bishop. Graphic adventure with caves to explore and puzzles to solve
16. **WORD PUZZLE GENERATOR** – Keith Bearman. Word puzzle game that runs in medium and hi-res
17. **MAKE A BREAK** – Martyn Brown. Trivia quiz with snooker connotations! Questions have different degrees of difficulty according to the ball's colour
18. **PARABELLUM** – Alex Dewdney. Escape from the deepest dungeons of the underworld
19. **TRI HELI** – Gary Wheaton. Two blindingly fast games on one disk, superb examples of 8-bit classics, updated and now gracing ST screens
20. **OPERATION ANGELICA** – Camy Maertens. Your mission is to rescue British troops stranded on Buff Cove in this Falklands conflict game
21. **IMPULSE** – Ian Grainger. Eliminate the maruadering aliens then destroy the detonator
22. **BANDIT** – Gary Wheaton. Electronic slot machine. Excellent music and superlative graphics
23. **SPACE BLOB** – Robin Edwards. Platform game with 15 levels and three bonus screens



Many of the games in Budgie's range have a strong arcade theme. Shoot-'em-ups are a particular favourite as witnessed here

Licence to thrill

PUBLIC EYE

Some of the best PD games *aren't* exactly PD. They're licenceware. Camy Maertens is the motivating force behind Budgie, the coding group that pioneered the concept. Adam Waring asks him if the idea has been successful...

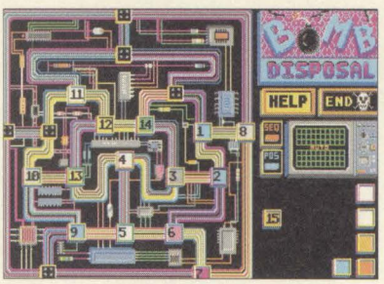
Budgie UK is a name synonymous with the very best PD games for the ST. Its games are always polished and professional-looking, yet are available for a mere couple of pounds. Collectors always have a place in their disk boxes for the latest release; libraries find it essential to include the games in their catalogues.

For every £3 game sold, 50 pence goes back to the author. Chicken feed, perhaps, but it's better than nothing as Camy Maertens explains...

PD: What exactly is Budgie UK?

CM: It's a group of programmers who have pooled their knowledge together. The aim is first of all to swap ideas and routines because modern machines like the ST are so complicated that you cannot possibly know everything yourself. You need friends to tell you how specific sound or graphic routines are written, so we thought, 'Well, there is bound to be somebody who is good at writing music, somebody who is good at doing graphics.' In other words it is a club where knowledge is pooled.

Secondly, because the name of the game is to write a program the idea presumably is that whatever you write is intended for consumption by somebody. PD, in other words. You can either give it away free of charge, which is more or less what we do, or you can sell it commercially. We don't want to get involved in commercial activities so we *almost* give it away free of charge – in fact, to the user it is largely free. Once we realised early on that the distributors, the PD libraries, were earning quite an amount from selling our products, we thought, 'Can we please be remembered? Can we have a little bit of the £3 you have just charged your customer?' And, of course, the libraries were only too pleased to give us something.



***Bomb Disposal* gives you the unenviable task of playing a bomb disposal expert. Steady there...**

But that is not the prime consideration. If it were we would do something else because the average programmer earns about £20 or £30 a quarter.

So that is basically the licenceware concept?

Yes that's correct. We authorise certain libraries to distribute our work providing that they remember us and pay us a slice of their profits as a token. Once the user has the disk, he can do whatever he likes with it, except he *cannot* sell it because he himself would then become a distributor.

The Amiga factor – is licenceware ST-only?

All Budgie's programs are written exclusively for the ST. The company currently offers 179 titles, including 100 in the games-only Singles range and has 33 officially licensed distributors. They have no plans to move over to other machines, such as the Amiga, though an offshoot of Budgie, Pollysoft, run by Simon Rush, has had limited success at creating an Amiga licenceware library.

Pollysoft has 14 titles, many ported from their ST counterparts, and three distributors. Most of the converted titles were those written in *STOS* which could be fairly easily rewritten to work in *AMOS*, which works in a similar way; the process takes about a week. More complex games written in machine code would have taken much more effort and time to recompile.

Other libraries have met with a better response on the Amiga, the most notable being Déjà Vu born out of the Official AMOS PD library and run by Sandra Sharkey. Déjà Vu boasts a range of around 65 licenceware titles.

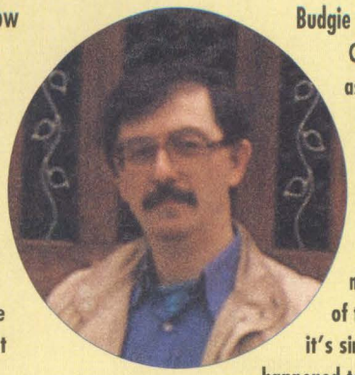
Who's a clever boy, then? The man behind Budgie

Camy Maertens hails originally from Belgium, but now resides in the Essex town Rayleigh, where his home and doubles as the headquarters of Budgie UK.

He started programming on a Commodore 64 and in 1987 bought an ST. He got fed up of the slowness of BASIC, and so decided to learn machine code, and soon came to realise that through the power of assembly language he could write arcade-style games on the machine.

His first game, *Damonoid*, was released into the public domain within a year of him getting the 16-bit machine, and managed to get good reviews in the computer press at the time. A friend's game, *Football '88*, was released a short while afterwards.

Paul Glover of The ST Club was impressed with the high quality of the games, and offered the duo an incentive to produce more; a slice of the profits the club made for the sale of each disk. He also suggested that they come up with some kind of name under which to produce this new kind of PD. Hence licenceware and Budgie were born.

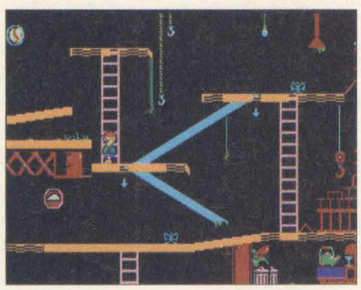


Camy describes himself as, "Secretary, chairman, cleaner and everything else that it takes to run Budgie." He goes on to explain that he never intended for any of this to happen, and it's simply because, "I happened to be the guy who wrote the first game. I did not have an objective of creating an empire or creating the club or anything like that. I just happened to be the first one."

Until recently he was proprietor of a busy computer store in Southend, which was unfortunately destroyed by fire. In the meantime he is concentrating on writing commercial software for Talking Birds, as well as managing Budgie, until the shop is rebuilt.

Budgie invented licenceware and various other organisations have taken the idea on. Do you think they are cashing in on your idea and maybe lessening the perceived quality of licenceware?
Not cashing in, no. There is very little cash involved, so if anybody copies us it is simply because they have appreciated the fairness of what we are trying to achieve and perhaps also the merit of pooling authors' resources and knowledge together. But as a means of achieving financial reward, no. Anybody who thinks that would be severely disappointed.

Let me give you an example. Last autumn we collected around £2,000 and we had to divide that amount between all 66 members of Budgie on a one title one share basis. We had around 130 programs at the time so each share yielded about £15 and that's what they got. People are copying the idea because they appreciate it is a fair idea, but there is no commercial virtue in it.



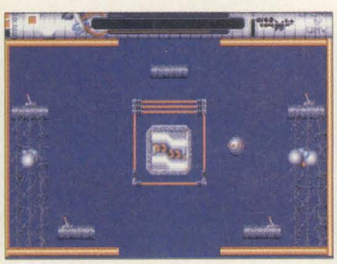
Platform action in *Clod Hopper*, Budgie's latest release and 100th in the Singles range

How does a programmer join Budgie's ranks?
They know about us, obviously. Programmers are also users like everybody else. They read magazines like your own, they receive PD catalogues. They read all about Budgie UK and the other licenceware set-ups in those catalogues and want to be part of it.

They can give their programs to the public domain which is fair enough and a lot of people do that; they can join in with Budgie UK and share in their good fortune, whatever that may be; or they can offer a program exclusively to one specific library and ask them to market it. Some chose that option. I'm not too keen on that because it does away with my first requirement which is the community spirit.

They get to know about us from reading magazines. Then they write to us: 'I've written an addictive little number and I'm going to send it to you...' I will have a look at it, show it to the other lads. They will say, 'We like it,' or not... or, 'There's a bug here... the title page is awful but we'll ask Gary to do one... there's no music but we've got some music.' Then we'll help them. Eventually we are happy with graphics, the music, the playability and that there are no bugs. We'll tell the the person that we will release it and send it to the libraries. Sometimes someone will send us a game and it's perfect first time but very often that's not the case.

Budgie's games often feature techniques to get the best out of the ST, such as the bisteringly fast scrolling in *Avina Blue*



Great graphics and unusual playing concepts are another trademark found in many of Budgie's games

Old classics revisited. There are two versions of the-game-that-started-it-all available in Budgie's list

24 **SLIPPERY SID** – Neil Scrimgeour. Sid has to munch his way through large quantities of pills, growing longer as he goes – but watch out for your tail...

25 **SCARY** – Eddie Bryan. Rescue your girlie from the haunted mansion. Take a cushion to hide behind, though, as plenty of weird things happen on the way

26 **CARRIER ATTACK** – Keith Bearman. *Battleships* game with ten levels of computer intelligence

27 **PSICOTIC** – Philip Rankin. Destroy an incoming fleet of alien ships. Credits enable you to purchase extra missiles, a teleport system or an extra ship

28 **SUB HUNT** – The Oliver Bros/SEA FISHERMAN by Paul Dowers. Sub sim and fishing game on one disk!

29 **DEATH CAMP** – Dave Blower. Text-based adventure set in a Japanese prisoner of war camp. Your objective: to escape, of course!

30 **A QUEST FOR GALAXIA** – Gary Wheaton. *Galaxians* game. Brilliant implementation of the classic shoot-'em-up arcade game

31 **INFERNO** – Simon Brown. Your task is to control a cunning demon through a maze of tunnels. Variation on the *Boulderdash* theme

32 **RUNAWAY** – Chris Skellern/**ROTATUS** by Tony Loton. Two space-based games on one disk

33 **CRYSTAL CAVERNS** – Robin Edwards. Explore 120 caves (!) to find three crystals

34 **SAFE AS HOUSES** – Ven'ra. Computer version of the famous board game *Monopoly*

35 **HOSTILE RECEPTION** – The Happening Boiz. A *Xenon*-type shoot-'em-up with 13 screens

36 **DOGFIGHT** – Philip Bishop. Perform aerial manoeuvres to outwit and outgun the other aircraft

37 **MR DIG** – Robin Edwards. Dig tunnels to collect the cherries. Avoid the baddies that chase after you and collect crystals for bonus points

38 **BUDGIE'S CROSSWORDS** – Jim Holmwood. A superb program with a vast collection of easy- to medium-difficulty crosswords

39 **ONYX** – Robin Edwards. You're out of fuel and your only hope is to shoot the many waves of aliens ships in order to gain more fuel. Er, it's a shoot-'em-up

40 **DIZZY LIZZY** – The Happening Boiz. A fine *Boulderdash* variation packed with all the ingredients that make this type of game so addictive

41 **EXODUS** – Chris Jeffery. Fly your aircraft over the alien death star – its defences are powerful...

42 **BOUNTY HUNTER** – Paul Dowers. Hunting down desperados is your trade. You have to manage your supplies, energy and ammunition

43 **THE VILLAGE** – Dave Blower. Adventure. Your colleagues are disappearing. Are you next?

44 **EXTERMINATE** – Chris Skellern. Parallax scrolling shoot-'em-up. Blast as fast as you can to survive

45 **MISSION DEADZONE** – Philip Bishop. Multi-screen epic where your hovership has to explore lunar caves in order to rescue scientists

46 **OVERLORD** – TC Basset. A fantasy adventure for two or more players. Construct a mystic pyramid to challenge the Overlord's dominance

47 **PERPLEXIA** – Dave Manning. Maze adventure with 24 levels of varying complexity

cont. on p50

cont. from p49

48 **XWPUZZLE** – Jeffery Heywood. Crossword puzzle generator, with built-in dictionary. The program creates crosswords before your very eyes

49 **KAHN** – Markus Kronenberg. *Sokoban* clone where containers have to be pushed on to an equal number of plates. Not as easy as it sounds

50 **SPACE INVADERS** – Robert Leong. This classic needs no introduction. Choice of classic or modern aliens. Three levels of difficulty

51 **SPACE DUEL** – Chris Jeffery. A two-player space dogfight set around the gravitational field of a powerful star. Two joysticks are required

52 **DOUGLAS ROCKMOOR** – Gary Wheaton. *Boulderdash* game with fantastic 50-frames-a-second scrolling, great sound and magical playability

53 **FROM LITTLE ACORNS** – Simon Brown. Mouse-driven adventure game set in goblin country

54 **AUTORAMA** – David J Thomas. Drive around a maze collecting flags, avoiding other cars that chase you

55 **CHIROPODIST IN HELL** – Gareth Lucas. You find yourself stranded on top of a mountain and in an unlikely plot for an adventure!

56 **SUPER LEAGUE SOCCER** – Adam Medley. A friendly management game with the usual features

57 **FOOTBALL GENIUS** – Camy Maertens. 400 questions on the world's greatest sport

58 **BERT THE SQUIRT** – John Shepherd. An 80-level game. Collect the fruits, bounce on the springs and whatever you do, don't touch the aliens!

59 **G-ORB** – Gavin Thornton. There are ten levels of 80 screens to get through in this absorbing space epic

60 **GUIDED MISSILE** – Gavin Thornton. A two-player game in which each player guides his missile towards their enemy's strategic sites

61 **A WINTER'S TALE** – The Happening Boiz. *Dizzy Lizzy II* with even more of that addictive gameplay and 40 more levels of mayhem

62 **COLONY** – The Bombout Bros. *Missile Command* variant with a multitude of special effects and some great graphics. Red alert, we're down to Defcon 1!

63 **SPACED WELLER** – Simon Wilsher. Tests your powers of observation. The aim of the game is to create coloured lines on a magical grid

64 **CASTLE FRANKENSTEIN** – Philip Bishop. Your goal is to create a monster from bones scattered throughout the various platforms

65 **DOUGLAS II** – Goth. The 1/2Mb follow-up to the hugely popular *Douglas Rockmoor*

66 **MISSILE ALERT!** – Robert Leong. Destroy wave after wave of incoming missiles and planes while protecting your own installations as well

67 **PACO AND THE TUNNEL OF DOOM** – Keith Bearman. A *Boulderdash* clone with a difference...

68 **BLACKSCAR MOUNTAIN** – Terry White. A fantasy adventure. Solve the problems with lateral thinking

69 **TABLIT II** – Andy Osborne. A word game similar to *Scrabble*, but using the dominos to place tiles

70 **PACMAN ST** – Robert Leong. The definitive version with smooth full screen scrolling

71 **DARK WARS** – Adam Medley. Role-paying adventure game with a 3-D view

And if someone sends you a game and it's a completely hopeless case?
I will send a lovely letter back! Hopeless games are normally written in STOS. We tell them it's very jerky, it does not work. If you are going to put 200 sprites on screen you should do it in machine code and we have a disk that teaches you machine code. I will tell them that they have to make the effort themselves: 'I cannot write it for you.' In other words I bring them back down to earth again. The vast majority come back with a renewed effort and eventually they get it right. Very often it's because they are using a language which is not suitable for the task that they envisage – that's the problem.

How many programmers are in touch with and supported by Budgie?
66, and we write to each other all the time. If you are a member of Budgie you know about all the other guys. I give them full details about everybody else; their ages, their addresses, what University they attend, their hobbies and so on. All that information is circulated to every single member. On top of that they also get their quarterly cheques form me. We divide that into exactly the right amount of shares. Head Office takes no cut, not one penny – it is a club, not a business. We share the amount. It's all above board – nothing is secret.

What do you get if you cross *Tetris* and *Pipemania*? *Pipeline*, that's what

What kind of standards do you require the software to meet before it is release through Budgie?
A high standard, obviously. We use intuition and three or four years' experience – the same that you use in your magazine when reviewing software. You can recognise a dog when you see it, can't you? Exactly the same questions are asked; is it playable? Is it addictive? Is it well presented? It's common sense really.

That's where we beat straight public domain because had we not been there those games would have ended in their primary form in the public domain, whereas we set the standards and by the time they reach the public they are pretty good. We also maintain the standards. For example we had 18 games which were written in *STOS* and when *STOS 1.6* came out they did not work any more. So we recalled all 18 and every one was recompiled and new versions distributed. Three months later out comes *STOS 1.62* – the games still didn't work and we did the same exercise all over again. That was gigantic work; we had to contact all the guys and every single game got recompiled twice whereas had it been in the public domain without support it would have been abandoned and it would still be floating around now in an unworkable version.

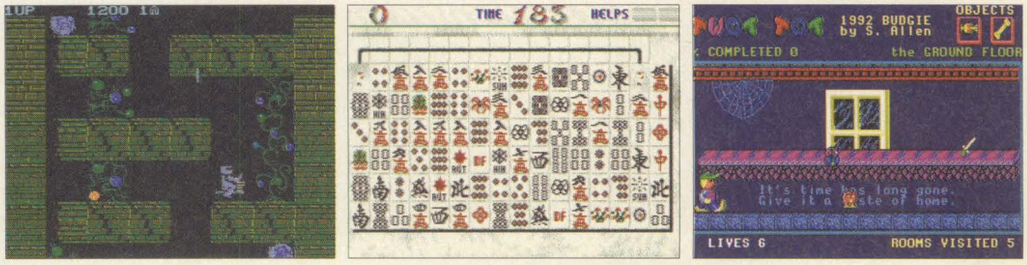
What does it take to qualify as a Budgie vendor?
First they must exist. I want to check they are a genuine distributor. They must be committed to the principle that we try to promote and to fairness. A further commercial criteria applies to prevent the awkward libraries from reaching us. I say I want them to sell a minimum amount of disks, ie, I want them to sell 75 Budgie disks each quarter. I also ask for payment in advance. That takes care of all the smaller people who only sell one disk a year. It's a lot of work because I have to send a copy of everything we do to all those people and all the updated revisions so they must be serious.

Is there any way you have of policing the royalties?
I cannot verify that they sell what they tell me; it is all based on trust. But even so, trust can be fine. For instance, if a company like Goodmans reports sales of 200 units, The ST Club reports sales of 220 units, Softville reports 210 units and suddenly one guy reports three units, well you know that guy is pulling your leg. And we say, 'Goodbye!'. Crooks will always give themselves away, so we don't police anybody; it is based on trust. But trust is verified by common sense.

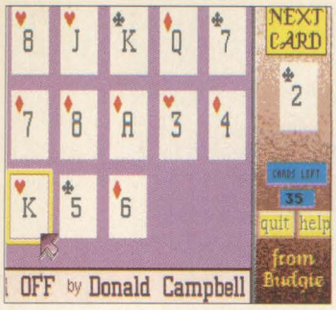
Does Budgie make much money?
Budgie itself makes nothing. Head Office makes nothing, not a sausage. If I did it would break the spirit and the ideal which is the one thing that I'm trying to promote at all cost. I can tell you that on average an author earns £15 per quarter per title written, that's £60 a year, but for year after year after year.

Since 1987, when we started the group, some of the early guys are still earning their £60 per year even though their games are obsolete by now. But as one of the members they get their share like everybody else. Of course some guys have written 12 games and get 12 times £60 per year.

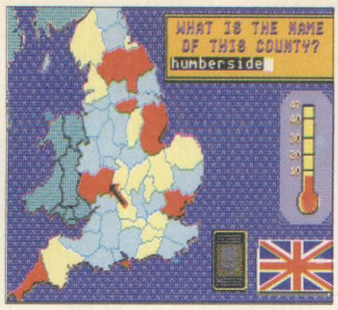
The shareware concept seems to have taken off with the likes of programs like *Llamasoft* from Jeff Minter. Does Budgie have any similar plans?
That's an exception. The Jeff Minter experiment only worked because his name was Jeff Minter. Had his name have been Jeff Barnstable he would have had three registrations. It only worked because his picture appeared in the magazine and because he was known. Remove all those conditions and he would have sold three copies.



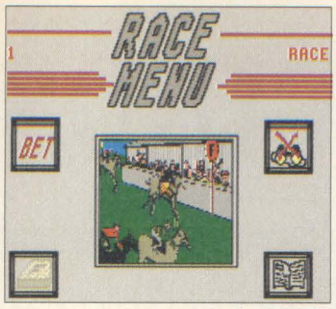
Budgie is capable of producing games in a wide variety of styles owing to the huge range of talent it has to draw on. There are 66 programmers who've produced programs through the organisation, and they are constantly in touch with each other



If card and dice games are your bag, then check out *Hi Roller*, a set of games including *Yahtzee* amongst others



Learning can be fun, too. *States and Counties* is one of Budgie's games that has been given an educational slant



If you're a betting type of person then *Horse Racing Simulator* gives you the chance of a gamble on the gee-gees

So you don't think it's a possible future route under any circumstances whatsoever?
Not in games, no definitely not. In serious software possibly. For it to work it would have to be an application package which is top quality and which is slightly unusable to force the end user to part with his money. If it was working perfectly, who in their right mind would register? That's why we have chosen to be licenceware. We get our share from the point of distribution and then we don't care what happens after that – we're happy.

One thing people like Jeff Minter have done with their shareware products is offer an extra game when you register or some other incentives. Do you think you could possibly work it that way?
Yes, that helps a little bit of course. Again it depends how good the incentive is. All that helps, I will agree with you. But you mustn't forget under any circumstances that the reason why he succeeded was his name and the fact that he was known and the massive publicity he received in the press. The program was also jolly good.

One thing with licenceware is that we are not that critical and we will accept programs where there is hope where we can tell it's a young lad that has written it. We encourage him and he might come up eventually with something that is really good. We are an open house; we like to cater for many tastes.

We have accepted and are proud of releasing products on the fringe like an astrology program which as shareware would never have sold, or commercially would have sold ten copies at the very most. Yet we accepted it because the guy put a lot of work into it and he presented it extremely well. We were impressed by the quality and the effort. Even so, it remained a very small market – let's face it, not everybody is into astrology. But we still accepted it because it was such a good program and showed so much promise. A few months later he wrote another lovely game which was far more popular and which justified our faith in him. So we don't apply the same quality – I won't say standards, but shall I say conditions – to be successful. For instance, for *Llamatron* to be successful it had to be top quality. Had it been so-so then it would have been a joke and it would have backfired badly. And you can't produce a game like that all the time. PD

Commercially speaking

Camy Maertens has made his first tentative steps into the commercial software market with his Talking Birds label.

Unlike the single-format Budgie productions, the demands of the commercial market mean that for any degree of success the programs have to appear in both ST and Amiga versions. The first game is *Football Tactician*, a highly polished football management game based on one of Camy's pet subjects (he has written other football games released through Budgie).

Though a separate project, Talking Birds and Budgie are strongly linked. Camy is keen for programmers writing for public domain to succeed with a full-priced game, though only the very best of Budgie's titles are likely to see release in a commercial form, and only then after a lot of work.

"Out of the 179 titles we have released I reckon three, possibly four, can make it on the commercial scene," says Camy. "If the authors are willing to go back to their source code and refurbish it – do it really, really well – then it will come out commercially at £20 under the Talking Birds Label."

He has high hopes for the future of Talking Birds too: "The whole thing will be run commercially, hopefully with proper rewards. It will become a job, then an enterprise, a business venture. But we will only do it if the Budgie version was either of a quality which implied we could hit the big time, or covered a subject for which we know there is a big enough market.

***Football Tactician* is Camy's first foray into commercial programming. If it's successful, other Budgie authors may get the chance too, as long as their program makes the grade**

"In other words, the astrology product we have is brilliant but we don't think we can sell 5,000 commercially, so what is the point? We will not do this one. On the other hand we have done football, because football is a huge market, the product is good; therefore we have a chance. In other words we will tread very, very, very carefully because you can't afford a mistake.

"At Budgie we can afford all the mistakes in the world; if it doesn't work we can get away with it, all that happens is that somebody will send it back to us and say, 'it died at level eight' and we will say, 'oh, so sorry.' We will put it right and that's the end of it. Commercially you cannot make a mistake, so it will be very much selected items only that are released."

72 **AVINA BLUE** – Chris Skellern. Negotiate a seemingly endless tunnel at mind-boggling speed

73 **SEVENTH HEAVEN** – Dave Blower. Adventure in which you have to find a cure for a terminal illness

74 **FIREGAME** – Mike Duncan. A *Monopoly*-inspired board game with many new concepts

75 **THE BLAGG** – A Woolcock and G Atkinson. Adventure game where you investige a robbery

76 **CLUNK** – Stephen Allen. A *Puzznic* lookalike with a few novel ideas. Frustrating but extremely addictive

77 **DENNIS AND DENISE** – Philip Rankin. Rescue your girlie who's been captured by an evil tyrant

78 **CLACKER** – Stephen Allen. *Klax* clone with a twist. Great playability and lots of options

79 **SHARKS** – Donald Campbell. A hangman-type game, except you get eaten by a shark instead

80 **TRAVEL GAME** – Mike Duncan. Visit 37 cities across the globe in a specific order. Money is limited

81 **DEAD OR ALIVE** – Kev Davis. Life as a private detective, a witty text adventure

82 **CRUSH** – James Gaunt. Your city is being bombed by a malicious craft. Can you escape over the walls?

83 **CYBERSTORM** – Kathy Steinbach. *Frantic Defender* clone. Smooth horizontal scrolling and great music

84 **HYLEILOS** – Markus Kronenberg. Multi-screen collect-the-diamonds-and-get-to-the-exit type of thing

85 **BALLPARK** – Andrew Oakley. A puzzle game in which you have to guide your robot to a safe exit

86 **QUATRIS** – Stephen Allen. A *Tetris* variant. Match patterns before they reach the bottom of the pile

87 **WHOOPSY** – Cy Noble. A baby has to gather his toys while evading mummy's obsession with cleaning

88 **ANNIHILATOR** – Robert Leong. A *Galaxians* variant. Hit them several times before they're destroyed

89 **HORSE RACING SIMULATOR** – Mark Loveday. Encompassing all aspects of the racing life

90 **MATCH IT** – Steffen Fischer. Well-presented *Shanghi* game with great graphics and loads of playability

91 **FLIPPED** – Andrew Oakley. A top-class puzzle game, requiring you to fill a board with patterns

92 **BRIDGE-IT AND SNAKES** – Donald Campbell. A compendium of board games to occupy the winter hours

93 **BUG SPRAY** – Philip Bishop. Protect your sunflower from the invasion of insects and other creepy creatures

94 **FOOTBALL MAGIC** – The Untouchables. Footie game with team selection, transfer market and four leagues

95 **PIPELINE** – Geoff Camp/**JUMPING GHOST** – Ralph Rudzki. Set of games for younger children

96 **HI ROLLER** – Donald Campbell. A game of dice, based on *Yahtzee*. Full instructions. Mouse controlled

97 **TWOT TOT** – Stephen Allen. You're trapped in the Mansion of Madness. You've seven lives, just as well

98 **STATES AND COUNTIES** – Mike Duncan. An ideal way of learning British counties and states in America

99 **BOMB DISPOSAL** – Mike Duncan. A game of logic. Place 20 diodes in the right sequence. It ain't easy...

100 **CLOD HOPPER** – Gary Wheaton. Platform game based in an old plutonium mine infested with mutant creatures. See the review this issue!

Demos

You want some undemanding entertainment? And you've heard that PD demos can br pretty darned impressive? Well it's not all roses in the demo scene. Maff Evans separates the Little and Larges from the Laurel and Hardys of the PD scene...

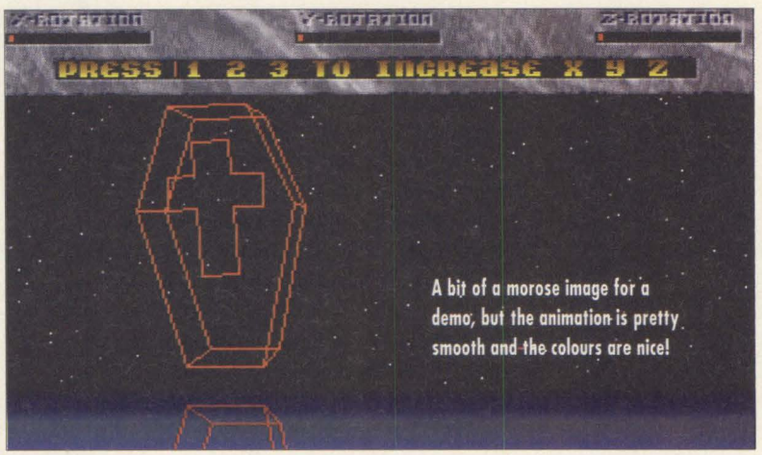
REVIEWS INDEX

California Raisins (ST)	58
CAT Computer Demo (Amiga)	56
Contact Has Been Made (Amiga)	57
Dead Beat Volume One(Amiga)	54
Easter Island Animation (Amiga)	57
Garloween (Amiga)	53
Intensive Frequency (Amiga)	57
Oh Well, That's Life (ST)	54
The Adventures Of Alice (Amiga)	55
The Newstyle Demo (PC)	52
Too Much 3D (Amiga)	56

Letters often arrive for me at the *Public Domain* office complaining that I mark too low. For example, Andy Gibson, known as Kenwood, the man responsible for the *Utah Saints 1991* demo which I reviewed in issue five sent a disk in to explain why the sampled remix needed to be loaded into a 2Mb machine to be heard. The reasoning was that the mix was simply a sample cut up using the Loop Sequence feature of *Audiomaster III*, so it took up a lot of memory. To tell the truth, if I'd known this was the technique used it would have got a lower mark! I have used *Audiomaster III* extensively, and know that it is capable of much better results.

This kind of thing is fairly typical, though: people putting together unoriginal, lack-lustre and technically lacking demos then getting precious when they are not received with glowing praise. Demos have to be original, entertaining and slick. Lack of technical expertise can be compensated by talented design and fresh ideas, not by simply saying that you found it tough to achieve the desired effect! I know it can be hard to come up with something new, and the temptation to just do what everyone else is doing or (even worse) plagiarising other people's ideas can seem like an easy way out. This is not the way to go.

So take a leaf out of the big-name demo writers handbook – make it exciting and original, or don't bother.



A bit of a morose image for a demo, but the animation is pretty smooth and the colours are nice!

The Newstyle Demos

Another PC demo disk to review this month as well! This has to be an achievement! Dutch PC coders the Newstyle crew have picked up on complaints in earlier issue that we don't get enough in the way of demos on the PC and so have put together a whole disk of the things. Admittedly they are rather simple, but they are a step in the right direction, at least.

All the demos are accessed by going into their own directory and typing a single command (none of that messing around with individual set-up files, here). The first demo is *Newvec*, which is a wireframe vector animation screen. A selection of objects is displayed, each rotating around their x, y and z axes. By pressing keys on the keyboard you can alter the speed of rotation, zoom in or out or move on to the next object when you're bored. The style is pretty simplistic, but the shapes all move smoothly and the graphics are nicely coloured.

Next up is *Newwave*. This is another straight forward demo with a series of rippling planes of vectordots. Pressing Space calls up the next pattern of dots which cycle around until you press Escape.

The next section, *Newscroll*, consists of a nicely-drawn golden eagle, with a scrolling massage whirling around its head. *Newstyle* is basically a greets screen, with some scrolling text moving across a picture of a cartoon chicken (don't ask why).

The most frantic section is found in the TLS directory. After loading up a rather odd little picture of an old lady sitting in space with her dog (all done with coloured text characters), a 3D chequered floor appears with balls bouncing across it, accompanied by a rotating, wavy logo at the top of the screen and a scrolly message down the side. Although this is technically good, it doesn't earn points for originality.

The final demo is a coders' contact list, which is brought up after a rather nice credits animation.

Although none of the demos break new ground, they illustrate the kind of subtly-shaded images that are possible on a VGA PC. Once more people start making use of this technology, we may soon see some impressively-drawn *and* original PC demos start to appear.

Some smooth vectordots are not really anything new, but it's nice to see them them in a PC demo.

IN BRIEF

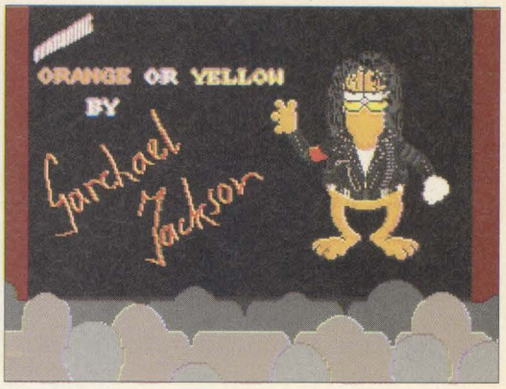
Type	PD
Author	Newstyle Crew
Requirements	512K • VGA

Available from
The Newstyle Crew, Archipel 13-69, 8224 GB Lelytad, Netherlands

PC 67%

Fizzy drinks advertising with that usually absent touch of realism. An example of the honour in the *Garloween* demo

Another famous ad campaign comes under the scrutiny of the computer satirist, this time for a certain cigarette brand



Garchael Jackson – just one of the top recording stars that can be found on the sound-track album of the movie

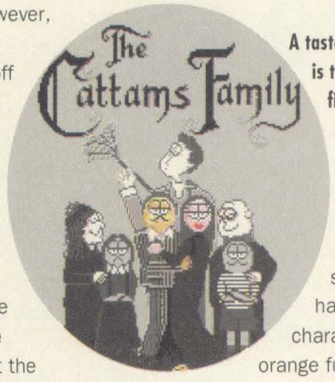
Garloween

The lights go down, the projector whirs into life. Will it be Sly? Will it be Arnie? Nope, Garfield's made it the big screen (sort of)...

There have often been PD cartoons based on famous comic characters, but these usually either come in the shape of one simple cartoon or several demos with a tenuous link to the character involved. This one, however, is a little different.

The demo starts off showing the inside of a darkened movie theatre, the viewers all seated and ready to watch a movie. After a couple of messages (no smoking and no mouse clicking – although I've never seen that one at the cinema) the ubiquitous cinema adverts roll up. These are parodies on famous products and advertising campaigns, featuring a version of the safe-sex campaign, a sugar and taste free cola and a well known brand of cigarettes.

Once the adverts are out of the way, it's time for the trailers, listing films that are due for release soon



A taste of forthcoming features is to be found once the main film has finished. This one looksstrangely familiar...

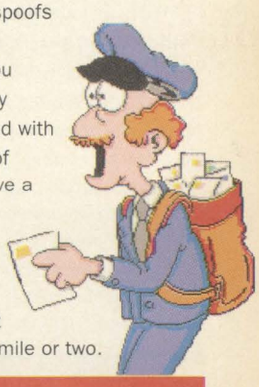
(although I doubt that they'll be appearing in your local flea-pit, somehow). All the films have one central character – that fuzzy orange fur-ball, Garfield. The first trailer is a spoof on the *Rambo* films, with Garfield loaded with weaponry to take out the local postman. This is followed by a comedy film entitled *Welcome to the Funny Farm*, a story of rubber rooms and straight-jacket antics.

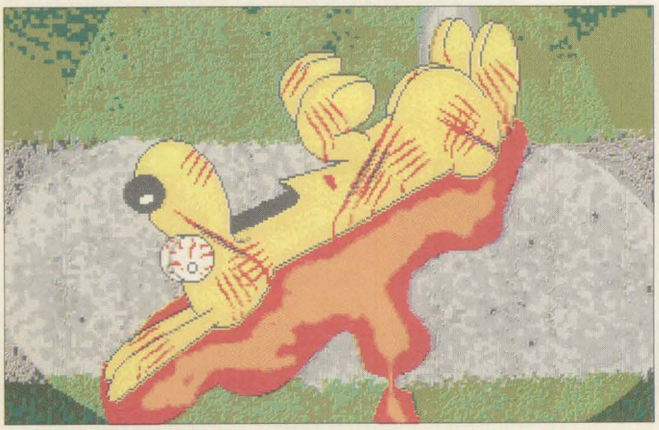
Next, the main feature appears. This is a tale of murder, madness and horror, entitled *A Chain-Saw Nightmare on Garloween Street the 13th – Part 48*. It's hardly an epic production, since it only features one scene, one murder and an image of Garfield wearing a Jason-style hockey mask. The tale finishes off eventually with the usual open-ended climax to allow for the appearance of a sequel. After the end credits of the film, some more trailers appear, featuring spoofs on the *Addams Family* and Garfield's owner Jon as *The Incredible Exploding Man*.

Lastly, what film would be complete without the sound-track? At the end of the demo, there is an advert for the CD of the *Garloween* sound-track, featuring fantabulous tunes from such world famous recording stars such as Garchael Jackson and Garf and Roses. These are both accompanied by short animations blending the Garfield character with Michael Jackson and Axl Rose, to pretty good effect.

The overall approach to the *Garloween* demo make it seem like a total package, rather than a few short clips bunged together (as many similar animation compilations appear to be produced). The idea of producing a whole program of events in a cinema ties things together nicely, so that it runs like a long cartoon with various chapters. The observations on cinema clichés and marketing ploys take a gloriously tongue-in-cheek approach to the satire. The animation is fairly simple, but the artwork is well-produced, capturing the feel of the original Garfield characters while managing to create amusing spoofs on other famous personages. If you want some classy animation coupled with a wicked sense of humour, then have a look at the *Garloween* disk. It's a bit off-beat (not to mention silly) but it could raise a smile or two.

Our scene is set. What has happened to this poor creature to send him around the bend?





Oh no! Poor Odie! Who could have done such a terrible deed? The answer could be...

...the masked killer himself! The villain of the *Garloween* story

IN BRIEF

Type	PD
Author	Patrick Nas
Requirements	1Mb
Disk number	1800/1 (two disks)
Available from	17 Bit Software, 1st Floor Offices, 2/8 Market Street, Wakefield WF1 1DH ☎ 0924 366982

AMIGA 81%

cont. on p54

Dead Beat Volume One

Another disk containing remixed versions of famous dance tracks here, but with a difference. And what's that? Well let me explain...

The disk boots up with a contact message by the disk's coder, followed by a rather horrible black and white (not greyscale mind, just black and white) intro picture. After quickly pressing the Space bar to get rid of this screen a menu appears, with three logos of famous records listed with their relevant function keys.

The three tracks on offer are

A nicely-drawn menu, with subtle use of logos instead of names to depict the three songs

Another record sleeve transcript accompanies the farcical *Enjoy the Silence* remix

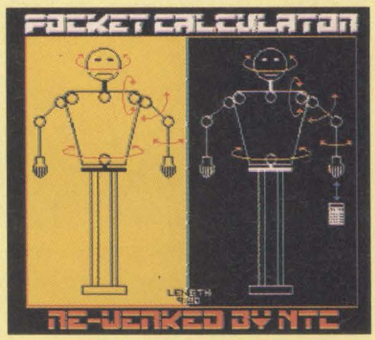
Kraftwerk's *Pocket Calculator*, Depeche Mode's *Enjoy the Silence* and Stakker's *Humanoid*. Upon loading the demos, however, the main difference between this and other remix disks becomes apparent – they don't sound anything like the originals!

Pocket Calculator loads up with a picture of the robots from the sleeve of the recent album *The Mix*, followed by a sample saying: "I'm the operator of my pocket calculator". Fair enough, that's true to the original, but the rest of the music has absolutely nothing to do with the actual track. They're as alike as Depeche Mode and Nirvana!

Enjoy the Silence isn't much better. The picture is fair enough (being a picture of the rose from the record sleeve), but the track suffers the same fate. After a vocal sample from the original track, the rest is completely different.

The final track on the disk is the last hope for a decent remix. However, this is yet another nice image (a weird cyberpunk logo) backed with samples from the original. The samples are scratchy, the joins obvious and the mix dull. Well, at least it sounds vaguely like the original.

I know that we've criticised many remixes for just being copies of the original tracks in the past, but this one just goes too far in the other direction. It's not as if the final versions are even listenable! If you want a decent Kraftwerk mix, then the version of *Musique Non-Stop* on the *Uranus Music Disk* is still the remix to seek out. Your best bet as far as this disk is concerned is to avoid it!



This picture and one sample is as close as you get to the original track with this demo

IN BRIEF

Type	PD
Author	NTC
Requirements	512K
Disk number	1789

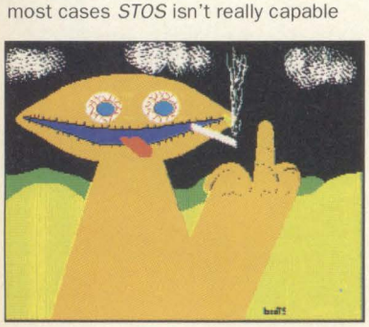
Available from
17-Bit Software, 1st Floor Offices, 2/8 Market Street, Wakefield WF1 1DH
☎ 0924 366982

AMIGA 25%

Oh Well, That's Life

One problem with PD is that because it's cheap, everyone thinks they can do it. Take the Demolition Crew, for example.

This coding group's effort, *Oh Well, That's Life*, is a collection of seven short demos all written using *STOS*. Although *STOS* is an admittedly powerful programming system, with the potential for creating some very impressive programs, it's hardly the best system to use for coding demos. After all, a demo is supposed to be entertaining while showing the power that the host machine is capable of. In most cases *STOS* isn't really capable



Oh dear. Not the way you'd expect a famous children's television character to act

When you compare this to some of the top New York graffiti, this isn't really up to scratch

of the whizzy techniques that we're used to seeing in PD demos.

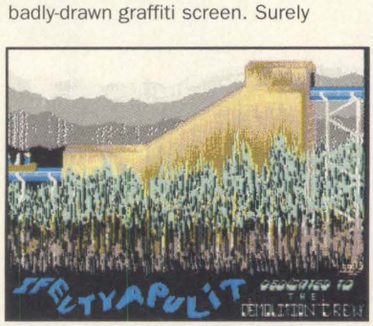
The seven demos on the two disks are all pretty basic, each following the same formula. The first section contains a badly-drawn title screen accompanied by a scratchy sample loop. At the bottom of the screen is a scrolltext filled with rude messages littered with expletives. Now come on! Just because your demo's not too hot there's no need to go swearing all over the place! Just when you thought the childish humour was out of the way, the second section, entitled *XXXX Geoffrey* (more clever innuendo) features Zippy from *Rainbow* smoking a dubious roll-up, flicking the finger and swearing (oh God, it gets worse).

Cannibalistix is a little more ambitious. The same scratchy, looped sample is there, but this time there are some animated sprites whizzing across the *Friday the 13th*-style image. It's not as bad as the first two sections, but it's still not good enough.

In *The Boots Mix (The Best 10KHz Sample Ever)* we're treated to another batch of scratchy sounds (which are worse than a lot of other 10KHz sounds I've heard) accompanied by a badly-drawn graffiti screen. Surely *STOS* is capable of much better things than this!

Moving onto the second disk, *Ifevtyapulit* (whatever that means) consists of a fairground ride carriage going into a tunnel and a rough sample of some weird goings on in the dark. It would be more funny if you could actually hear what is going on. *The Abominable Postman* is the last real demo (the last part is simply a credits message and contact address) and consists of an abysmal drawing of a blue yeti backed by the worse sample so far. It's virtually impossible to hear what's going on!

Demos are supposed to be about people pushing their machines to the limits. *Oh Well, That's Life* doesn't even approach the limits of *STOS*, never mind the machine.



What does that title mean? Is it something to do with the fair? Who knows?

IN BRIEF

Type	Shareware
Registration fee	£5
Author	Total Destruction
Requirements	512K
Disks	Two

Available from
David Paulling PD, 8 Bullich Court, Croxton Road, West Dulwich, London SE21 6RL

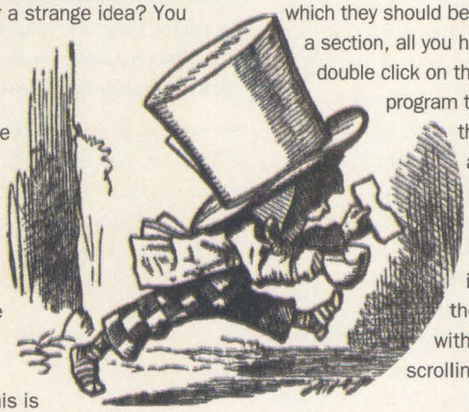
ST 22%

The Adventures of Alice

Could this be the way to encourage the computer-literate generation to read classic literature? Or does *Alice in Wonderland* need a bit more action to attract their attention?

I bet you've never played chess with characters that answer back! It could make the Sicilian defence a bit difficult!

How about this for a strange idea? You take a well-known story book, type the entire text into a number of text files, scan in the illustrations and plonk the whole lot on to four disks. Well this is exactly what George Thompson Services has done to bring us Amiga versions of those childrens' classics *Alice's Adventures in Wonderland* and *Alice Through the Looking Glass*.



Another famous Wonderland character. Can you guess who it is? Well, the oversized headgear could be a bit of a clue

The demo is loaded via the Amiga Workbench, with each disk containing a number of chapters and their accompanying illustrations. The first disk also contains some background information on the books' author (Lewis Carroll, as if you didn't already know) as well as some details about the story itself.

Opening up the window for the relevant section of the book pulls up a set of icons. These are all arranged intelligently, with icons for chapters of text placed in the order in which they should be viewed. To open a section, all you have to do is double click on the icon. A viewing program then accesses the text or picture and brings up the required screen to view the section. The text is displayed on the *ppMore* viewer, with controls for scrolling up or down the text so that you can read it at your leisure.

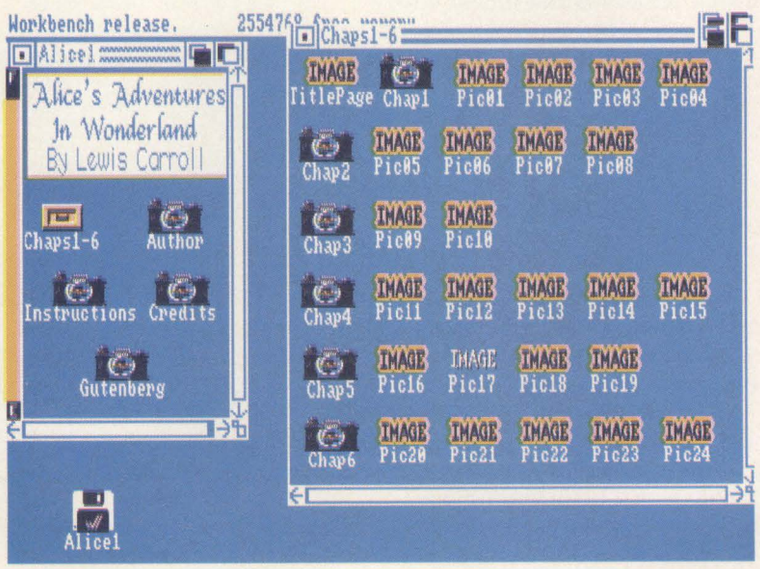
The pictures are all high-quality scans of the original line-drawings from the book, which are displayed on-screen until you press the mouse button to move on. The structure of the demo means you can dip into the 'books' and view any section you want, so that you can come back to it after reading one section and pick up where you left off – much like a normal book with a bookmark, in fact.

In addition to the two *Alice* books, an added bonus is available in the form of a transcript of Carroll's *The Hunting of the Snark* - a weird poem if ever there was one (and which has recently been subjected to the musical treatment by none other than Mr Womble himself, Mike Batt – I think this disk is the better bet).

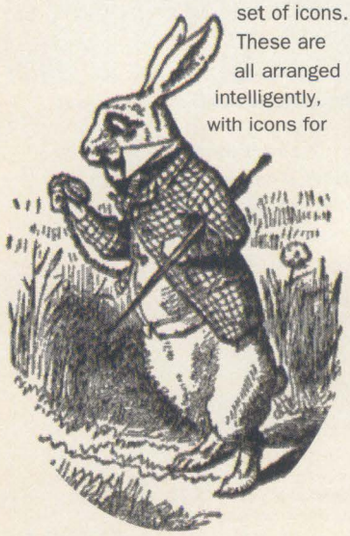
The main problem with the demo is that it isn't really very exciting. The text is an accurate transcript of the book and the digitised illustrations are all very clean and clear, but why sit in front of your computer and mess around loading batches of files when you can sit comfortably anywhere and read the original paper-based book? It may be an interesting item if you own an Amiga and you're a fan of the original, but it's hardly likely to convert computer freaks to a more literary way of life (or, indeed, the other way around).

What's this? A little door! What could possibly be on the other side of such a small opening? If you don't already know perhaps you'd better get this program

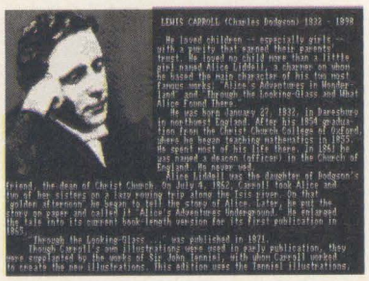
If this kind of demo is to take off, then it would probably be better to put together a disk containing a new story and some original artwork (maybe even a few simple animations). That way it would allow budding new authors to show people their talents as well as giving a whole new field of entertainment for computer fans – new and original disk-based books. As this disk stands, however, it's just an interesting idea that doesn't really reach its full potential. Anyway, must hurry. I'm late, I'm late...



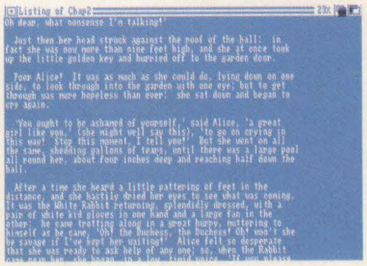
All the sections of the *Alice* demo are viewed by selecting the relevant icon from the Workbench



This familiar character is the nexus for the tale of *Alice's Adventures in Wonderland*



Some additional background information on the author, Lewis Carroll, and the *Alice* stories are also available from the disks



The text for the chapters is viewed using *ppMore*, a standard Amiga text viewer, so that you can read any section you wish.

IN BRIEF

Type	PD
Author	Duncan Research
Requirements	512K
Disks	Four

Available from
George Thompson Services Ltd,
Cucumber Hall Farm, Cucumber Lane,
Essendon, Herts AL9 6JB
☎ 0707 664654

AMIGA 76%

cont. on p56

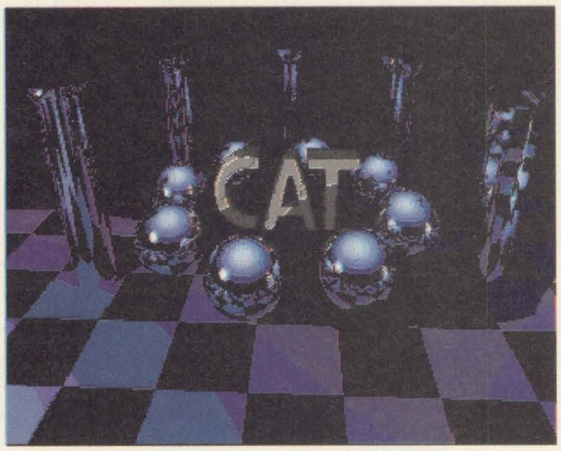
cont. from p55

CAT Computer

Usually PD megademos are an attempt by coders to try and cram as much stuff as possible into as short a time as they can. This often results in a blaze of light, colour and sound which is not only repetitive and dull, but also extremely hard to watch. Coding groups Crionics and Silents have sidestepped this tack to come up with what is possibly the first ever relaxing megademo.

These swirly, twisting lines are displayed using an unusual 'ghosting' technique. The strange animated blue cat is pretty spiffy too,

The disk starts up with an animated C-A-T logo whizzing out of the screen, followed by some messages to other coders and contact addresses (all in foreign languages, unfortunately). Next up are a few smoothly animated vector shapes zooming into infinity, but they don't last long enough for you to get bored with them (as many other disks do). The logo then zooms down to the corner to reveal a nicely-animated cat silhouette. The rest of the screen is taken up with sets of rotating vector patterns, consisting of tiled floor effects and rippling vectordots. These use the same 'ghosting' technique as the vector shapes in the *Hardwired* demo (reviewed in issue four), but unfortunately without the wonderful metamorphosis effect.



This raytraced picture may look nice as it is, but you should see it on the move for best effect! The metal balls rotate extremely smoothly

Next up are some more vectors, including a very realistic disk and the usual glenz routines. What's a glenz routine? Well, if you've ever watched a demo you've probably seen one even if you don't know it. It's when a semi-translucent, three-dimensional, multi-faceted geometric shape spins round. So now you know. This is followed by a raytraced animation. It's just a simple loop, but it works very well.

The whole demo is backed up by an ambient and mellow dance track which is more of a groove than a body-twister. This adds a nice soothing feel to all the shifting images that appear on the screen, making the *CAT Computer Demo* one of the calmest demos to appear for quite some time. Just the thing to play when you're having a relaxing cup of tea.

A whizzy spaceship is just one of the vector shapes found on the *CAT Computer Club* demo

No, you don't have to mess around swapping disks. This is just another example of the vectors on show during the demo

IN BRIEF

Type	PD
Author	Silents & Crionics
Requirements	512K
Available from	Wack PD, 48 Emerson Avenue, Middlesborough, Cleveland TS5 7QH

AMIGA 77%

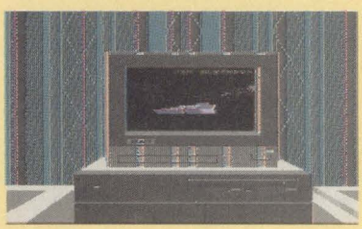
Too Much 3D

Demos containing 3D spaceships whizzing around the screen aren't anything new, but this one takes the idea and turns upside-down and inside-out.

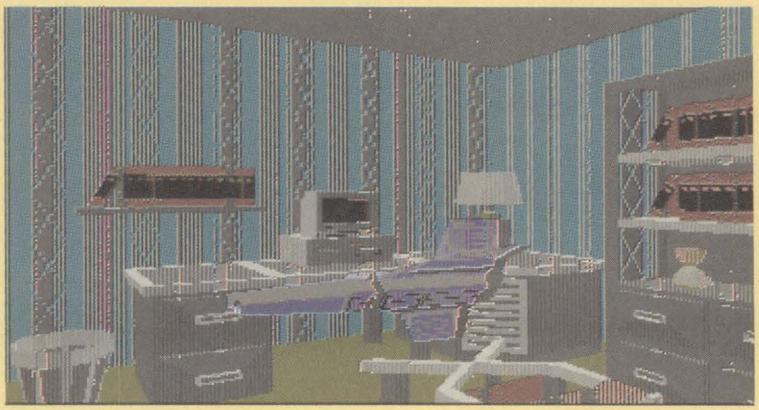
To begin with, the scene is an Amiga sat on a desk with a 3D animation playing on its monitor. "Aha," I hear you say. "So it's one of those things where you're watching the demo on a smaller monitor display because the computer can't handle the animation at full size." Well, that's where you'd be wrong!

Sure enough, the first section of the demo is taken up with a 3D animation of a flying spaceship being displayed on a picture of an Amiga monitor, but it gets a little more ambitious than that. After the ship has flown past, followed by a panning-camera view, it starts to fly towards the viewer, eventually filling the (smaller) screen. At this point the view moves out to the corner of the room, looking back towards the computer on the desk. The ship flies out of the monitor, knocks over the chair in front of the desk, circles around the room and then flies back into the monitor before the view pulls back to the front of the screen and the sequence begins all over again.

As you can probably imagine, this is an impressive-looking clip. Although it seems pretty dull to begin with, the small TV view of the flying spaceship is impressive in itself. The graphics are fairly detailed even at this size (with the stars in the background and the engines on the ship itself being picked out in meticulous detail) and the ship moves smoothly across the screen as the view turns.



A normal everyday scene of a 3D demo whizzing across the screen of the Amiga



I bet this kind of thing has never happened to you while watching a demo! I hope not anyway

Where the demo gets really impressive though, is when you get the picture of the entire room in shot. All the furniture and scenery are exceptionally well-defined (all using 3D polygons), featuring such details as a set of encyclopaedias on the shelf, carefully shaded drawers on the front of the desk and shelves and a very realistic lamp on the side. Despite the addition of all this detail, the excellently-depicted ship still flies across the screen extremely smoothly, as does the chair when it falls.

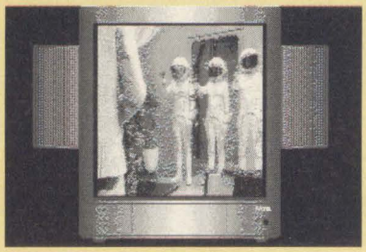
The care taken with the demo shows what can be done with 3D animation when you apply a little imagination with the skill. A winner!

IN BRIEF

Type	PD
Author	Jim Robinson
Requirements	512K
Disk number	1737
Available from	17-Bit Software, 1st Floor Offices, 2/8 Market Street, Wakefield WF1 1DH ☎ 0924 366982

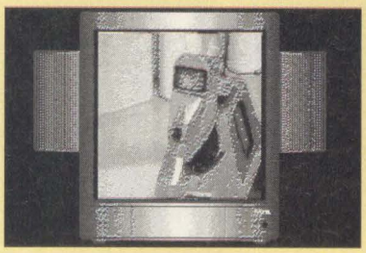
AMIGA 86%

Contact Has Been Made



Mysterious spacemen toting guns are hardly the friendliest people to meet as you travel

The Time Lord himself – Doctor Who (the Tom Baker version). But that's not the theme tune



As everyone knows, a time traveller's best friend is his robotic dog. Heel, K9! Heel!

Ugh! A squirmy lizard thing (aren't they all?) Get it away from me! Help! Help!

A blast from the past as the *Contact Has Been Made* demo starts up. Sit tight all you sci-fi fans!

This demo is most definitely one for the sci-fi freaks out there, especially fans of one particular time traveller. *Contact Has Been Made* starts off with a sample from the television series *Red Dwarf*, with Cat singing his Fish Eating song. You know the one: "I'm going to eat you little fishy, I'm going to eat you little fisheeeeee, 'cause I like little fish!" Well, we didn't say it was any good!

This is accompanied by a title screen containing a picture of a television showing a scene from the opening titles of *Doctor Who* (from the Tom Baker era, with the diamond-shaped logo). Once the sample has finished playing, a few black and white digitised pictures are loaded, each one being displayed in the small TV area of the screen. These include pictures of Tom Baker (as seen in the opening credits of the show), Leela, K9, the Tardis and various *Doctor Who* enemies (ranging from gun-toting spacemen to sheets of flame and lizard-like creatures).

All the frames have been taken from *The Invisible Enemy*, with a musical backing using samples from an obscure dance track (as well as the *Doctor Who* story in question). The sampling isn't that hot, with the sounds appearing muffled and rather distorted. The editing isn't that great either, with jumps and glitches popping up more frequently than a very frequent thing indeed.

Seeing as the demo requires 1Mb of chip RAM to store the music, you'd think that better use of the memory would have been made than this. So what have we got? Tiny black and white digitised pictures, scratchy samples and bad editing. Not much hope really, is there? Non-*Who* fans should steer well clear.

IN BRIEF

Type	PD
Author	Vark
Requirements	1Mb of chip RAM
Disk Number	1788
Available from	17-Bit Software, 1st Floor Offices, 2/8 Market Street, Wakefield WF1 1DH ☎ 0924 366982

AMIGA 39%

Intensive Frequency

Intensive Frequency doesn't have much in the way of graphics, but the music is pretty good

Couldn't really get through a month without reviewing a disk containing versions of hit rave tracks could we?

This one has been put together by rave music fan Stryx and contains versions of three recent chart hits: Moby's *Go*, Altern-8's *Activ-8* and Prodigy's *Everybody in the Place*. All three tracks have been well produced, with some clean samples having been re-organised to produce new versions of the songs. *Everybody in the Place* does sound slightly scratchier than the others, but it is still a good deal better than a lot of the stuff around.

The only problem is one that we've mentioned a few times before in this section – originality. The mixes need to be a little more radical to make demos like this interesting. But as far as conversions go, these are pretty good.

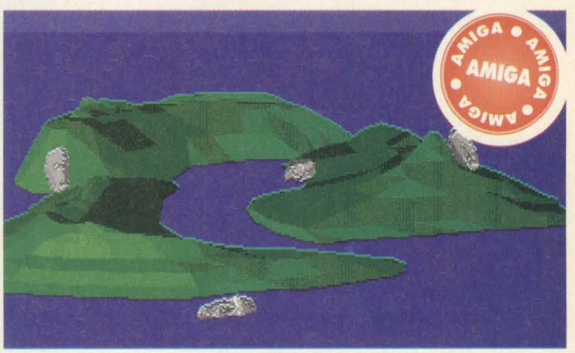
IN BRIEF

Type	PD
Author	Stryx
Requirements	512K
Disk Number	1783
Available from	17-Bit Software, 1st Floor Offices, 2/8 Market Street, Wakefield WF1 1DH ☎ 0924 366982

AMIGA 67%

Easter Island Animation

Dave Taylor has released a few Amiga animation disks in the past few months, one of the most notable being the *Muttley and the Beanstalk* demo (check out the review in issue five). His earlier work has been mainly taken up by digitised animation loops from films and cartoons, but for his latest release he has taken a different approach.



A desolate view of a ravaged island. Those stone heads can mean only one thing – it's Easter Island! Get set for a spectacular helicopter-style fly-by

Easter Island is a clip of an island rising out of the sea before a helicopter-type fly-by scrolls the landscape off the bottom of the screen. The scenery has been created with a fractal landscape generator, with some 3D-polygon stone heads having been added later.

The animation is only a short loop (as were his earlier demos) but the new style and presence of colour make it different from his cartoons. The animation is very smooth and shows that Dave is capable of a few different animation styles and shouldn't be pigeon-holed. Soon he'll be a name to watch out for.

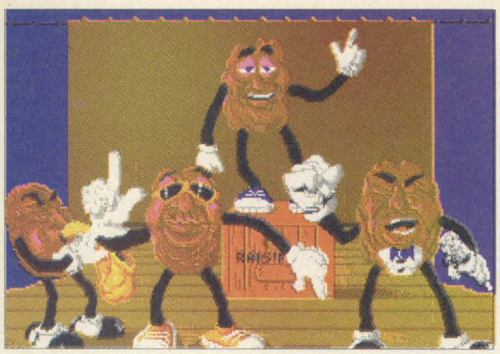
IN BRIEF

Type	PD
Author	Dave Taylor
Requirements	512K
Disk Number	1736
Available from	17 Bit Software, 1st Floor Offices, 2/8 Market Street, Wakefield WF1 1DH ☎ 0924 366982

AMIGA 63%

cont. on p58

cont. from p57



Watch those fruit chaps strut their stuff as they perform the great Motown hit *I Heard It Through The Grapevine* (groan)

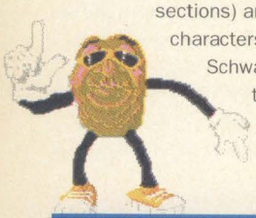
California Raisins

Whoever thought of creating a cartoon series about a plasticine-animated soul group consisting of a bunch of raisins? I don't know but I do know they were American (what a big surprise!) In fact, it's become so successful that James and James PD has put together a short animation based on the fruity pop stars.

The demo isn't self-booting, and it takes some fiddling to get working which is a bit of a chore if you're not familiar with the desktop! Once the demo has loaded, however, you can select to play it in a continuous loop (again, from the pull-down menu) so that you can keep watching it until you get bored.

The clip itself is an animation of the Raisins on stage, performing a version of Marvin Gaye's *I Heard It Through The Grapevine* (what else should a bunch of dried grapes sing?) The animation style is well done (if a little simple) and the Raisin characters themselves have all been carefully drawn to capture the feel of the original animated models. The sampled music is pretty impressive too. Background noise has been kept to a minimum so that the song sounds fairly clear, but the sample is still pretty long, capturing quite a few seconds of the original record.

If this kind of animation style could be expanded to make longer cartoons (maybe by loading in sections) and to contain a few original characters, we could soon be seeing Eric Schwartz-type animations beginning to appear on the ST. It would make a change from all the vectordot and spinning shape demos anyway!



IN BRIEF

Type	PD
Author	S James
Requirements	1Mb
Disk Number	DEM 001

Available from
James and James PDL, 28 Almorah Road, Bedminster Bristol BS3 4QQ

ST 76%

The best of the rest • The best of the rest

Want to know what we reckon have been the demos that have really blown our minds over our first six issues? You do? Well, here they are, all nicely arranged into Top Tens. Aren't we nice?

ST

1 A Little Music Demo — Issue 1 — 92%
Riverdene PDL, 30a School Road, Tilehurst, Reading, Berkshire RG3 5AN ☎ 0463 225736
A collection of eight excellent *Soundtracker* tunes covering a wide variety of styles.

2 Ooh Crickey, What A Scorcher — Issue 2 — 90%
Riverdene PDL, 30a School Road, Tilehurst, Reading, Berkshire RG3 5AN ☎ 0463 225736
An impressive demo from the Lost Boys that combines humour, decent music and a selection section requiring you to fly a spaceship through a 3D landscape.

3 The Run — Issue 1 — 84%
MPH, 10 Chandlers Court, Eaton, Norwich, Norfolk
A superb piece of 3D ray-traced animation from the master, Tobias Richter. A high speed car chase along some American freeways with great attention to detail.

4 Mental Hangover — Issue 6 — 81%
State 808PD, 3a Old Lanark Road, Carluke, Scotland ML8 4HW
An ST conversion of Scoopex's *Mental Hangover* demo for the Amiga. Wild bobs and vectorshapes backed up by an impressive tune constructed from samples.

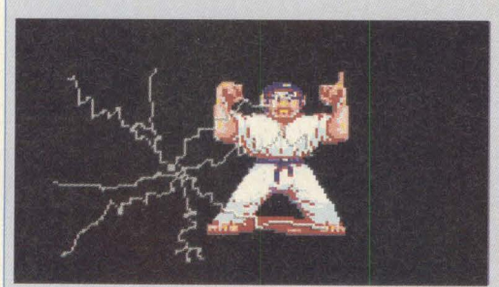
5 Transbeauce Demo II — Issue 2 — 81%
Riverdene PDL, 30a School Road, Tilehurst, Reading, Berkshire RG3 5AN ☎ 0463 225736
An entertaining selection, of which the *Art of Code* demo is the standout – excellent music accompanied by an animation of a band thrashing away at their instruments.

6 Mr Benn Demo — Issue 1 — 80%
Caledonia PDL, 250 Oldtown Road, Hilton, Inverness IV2 4PT
Relive those childhood memories. The theme music plays, accompanied by a series of quality digitised images. Includes a *Rocky and Bullwinkle* demo as a bonus.

7 TWM Module Disk 11 — Issue 2 — 79%
Riverdene PDL, 30a School Road, Tilehurst, Reading, Berkshire RG3 5AN ☎ 0463 225736
Combining clear sound with powerful tunes, this is well worth checking out.

8 Hardcore Dancefloor — Issue 4 — 78%
State 808 PD, 3a Old Lanark Road, Carluke, Scotland ML8 4HW
A collection of tunes put together using samples from techno tracks such as *Quadrophenia, Charly* and *Night in Motion.*

8 Things Not To Do — Issue 1 — 78%
Riverdene PDL, 30a School Road, Tilehurst, Reading, Berkshire RG3 5AN ☎ 0463 225736
Strange animated clips of some karate fighter. Quite funny in a crude way!



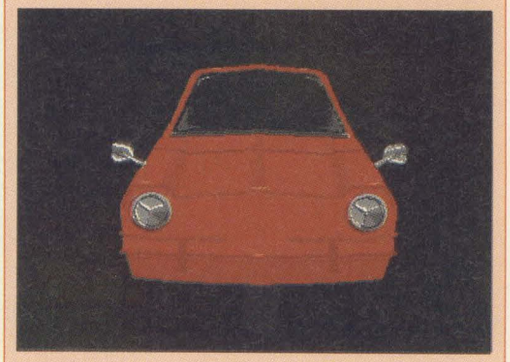
Oh dear! It looks like he's gone and cracked your screen!

10 ULM New Year Demo — Issue 2 — 78%
Rust PDL, 361 Ordanance Road, Enfield, Middlesex ☎ 0992 717828
Mainly pretty dodgy collection with one major saving grace. The *Zoolook* demo, based on the Jean Michel Jarre track is really rather good.

AMIGA

1 Odyssey — Issue 4 — 95%
NBS, 1 Chain Lane, Newport, Isle of Wight PO30 5QA ☎ 0983 529594
Five-disk epic of galaxy-spanning action with a variety of animation styles and music, all pretty impressively done. The dogfight is stunning.

2 Robin Reliant Turbo Challenge — Issue 4 — 95%
4th Dimension, 94 Breedon Street, Long Eaton, Nottingham NG10 4FE
A witty little piece of animation which reproduces the attract screen from the top-selling game *Turbo Challenge II*, replacing the Lotus with a Robin Reliant.



How do you think a Robin Reliant would fare in *Turbo Challenge*?

3 Anti Lemmin' Demo — Issue 1 — 93%
17 Bit Software, 2/8 Market St, Wakefield WF1 1DH ☎ 0924 366982
Superlative animation from Amiga demo maestro extraordinaire Eric Schwartz. Watch the furry little vermin from the famous game indulge in Rambo-style action.

4 Manic Raves — Issue 1 — 93%
17 Bit Software, 2/8 Market St, Wakefield WF1 1DH ☎ 0924 366982
Eight songs on two disks that are so darned good they'd sell by the truck load if they were sold on 12-inch record and played endlessly at your local rave.

5 At The Beach — Issue 6 — 91%
PD Soft, 1 Bryant Avenue, Southend-On-Sea, Essex SS1 2YD
Can nothing stop Eric Schwartz's dominance of the chart? Fun on the beach this time, as Moondoggie and Flip the Frog both try to woo Clarisse the Cat.

6 Gulf War Conflict — Issue 3 — 91%
PD Soft, 1 Bryant Avenue, Southend-On-Sea, Essex SS1 2YD
Another masterpiece from Eric Schwartz. The subject matter might be past the sell-by date, but the humour, animation and caricature of Saddam are great.

7 Wildfire Megademo — Issue 3 — 91%
PD Soft, 1 Bryant Avenue, Southend-On-Sea, Essex SS1 2YD
Packed with some really powerful, pounding music and acieeed-style graphics, this demo is a real winner from the Wildfire coding team. Turn up loud.

8 Time Flies — Issue 2 — 91%
Amiganuts, 169 Dale Valley Road, Hollybrook, Southampton
Superb piece of 3D ray-tracing as a clock flies at high speed around a room.

9 Hardwired — Issue 4 — 90%
NBS, 1 Chain Lane, Newport, Isle of Wight PO30 5QA ☎ 0983 529594
Two-disk compilation containing a progressive series of sections unveiling new and wonderful techniques – space battles, vector demos, scrolls, they're all here.

10 Mars Flight — Issue 1 — 90%
17 Bit Software, 2/8 Market St, Wakefield WF1 1DH ☎ 0924 366982
Excellent 3D animation of a spaceship flying over a futuristic city on Mars, complete with skyscrapers, and then coming in to land at a spaceport.

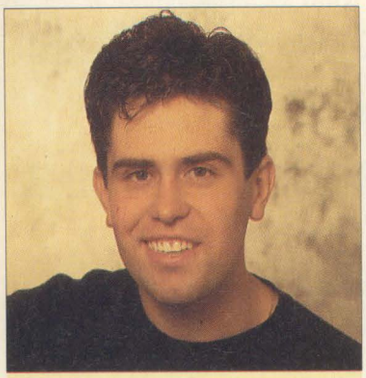
Next month's *Sega Power* (the magazine with bags of Plymouth Argyle) makes hay while the sun shines in the six yard box! There are some wicked FREE earphones on the front too!

BRITAIN'S BEST-SELLING SEGA MAGAZINE!
SEGA POWER
NOT APPROVED BY SEGA UK!
JUNE 1992
ISSUE 31
£2.50
Er... quite remarkable! Tecmagik's Master System footie game! Er, Brian...
179 MEGA DRIVE GAMES REVIEWED & RATED!
168 MASTER SYSTEM GAMES REVIEWED & RATED!
30 GAME GEAR GAMES REVIEWED & RATED!
40 GAMES TIPPED IN OUR 14 PAGE TIP BONANZA!
HEAD IT IN!
European Club Soccer hits your Mega Drive!
FREE!
Crank up the volume with these SEGA POWER EARPHONES
Fully enjoy the stereo sound of your Mega Drive and Game Gear with these excellent earphones!
No stereo earphones?
Ask your newsagent!
SONIC VERSUS MARIO
Who's the best game character in the whole world?
WIN 4 season tickets to see Arsenal, Liverpool, Man Utd, Spurs..! PLUS 5 full soccer strips!
Future PUBLISHING
Your guarantee of value

BRILLIANT EARPHONES FREE WITH THE JUNE ISSUE!

June issue on sale on Thursday 7 May. We've booked it to be sunny, so you'll get a tan on the way to the newsagents too.

Pukka!



Home & Education

REVIEWS INDEX

AmigaGUIDE (Amiga)	68
Early Learning Maths (ST)	63
Layman's Cookbook (Amiga)	68
Lugnut City (PC)	64
Magic Crayons (PC)	68
Paintbox (Amiga)	62
STOS Typing Tutor (ST)	62
The Panda Game (PC)	68
Total Concepts: Dinosaurs (Amiga)	60
Turf Accountant (PC)	64
Undersoft Collection (ST)	67
Word Rescue (PC)	61

It's a bumper month for early learning software with some major releases from America and Australia. Plus, a handy package for amateur bookies, a journey into a prehistory and lots more. Dave Golder's given them all a good going over...

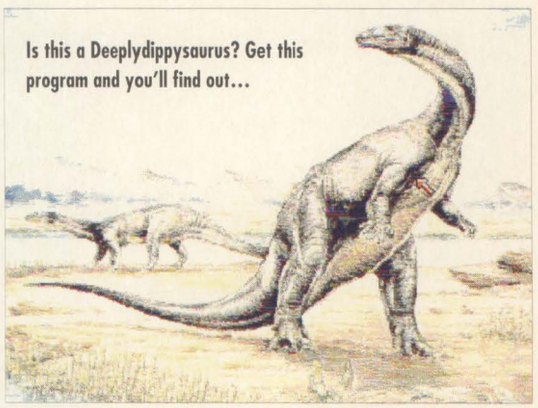
Educational and hobbies software are the two areas where the public domain really scores over commercial software. In the case of the hobbies stuff this is not difficult to understand. A lot of the stuff I review, such as cookery, astrology or betting programs, would only appeal to a very small number of people; there is simply not the commercial demand. Luckily, PD and shareware can cater for their tastes, and some of the programs are mighty fine (though, in the cookery department, ignore *Layman's Cookbook* reviewed this month, and check out the ones in the PC Best Of The Rest Top Ten for a good example of what I'm on about).

But there is no reason why the commercial companies should not put out heaps of decent educational software. There obviously *is* a demand. Yet time and time again I am bowled over by really excellent PD or shareware program for the under 10s (such as the excellent *Early Learning Maths* this issue) while decent full-priced kids software is few and far between.

But there is one thing amiss. Good educational sofware for the Amiga is extremely hard to find. While there's a glut of the stuff on the ST and the PC, the only company that seems committed to the Amiga in this area is Déjà Vu.

Come on Amiga programmers – show us that you care about the next generation of computer users...

Total Concepts: Dinosaurs



Is this a Deeplydippysaurus? Get this program and you'll find out...

Back in issue five I reviewed a couple of programs that were PD tasters of licenceware to come. Called *Total Concepts*, they were a form of computerised educational text-books based on a hypercard-type system; on any 'page' you have the choice of clicking on certain areas to take you to related topics, display a relevant picture, go back to the main menu, or simply flick on to the next page. The authors are planning a whole series of these 'books' each based on a different subject, and the first fully-blown licenceware tome has arrived.

Total Concepts Dinosaurs is a much-expanded version of one of the PD disks I reviewed. This not only applies to the amount of text and number of diagrams and pictures on offer – there are now over 70 pages of text and 15 extremely-well digitised pictures, over double the previous amounts – but also in the control system. You can still browse through the pages using the cursor keys, but there is now also mouse control; just click on the relevant items to go back or forward a page, return to the menu, go back through the pages in the opposite order that you read them (useful if you haven't just been flicking through numerically), or even bring up a window that lists every page on offer; from here you just highlight the one you want to go to it.

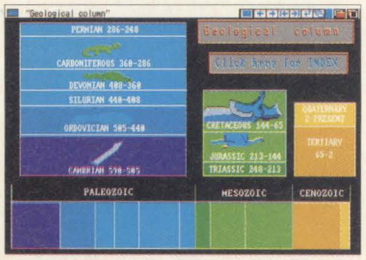
There are still 'hot spots' on some pages which, if you click on them, display a picture or take you to a page on which there is information relevant to what you are currently reading.

Another enhancement is the use of menus to offer a lot more options. The program now offers text and page search, screen dump and print facilities in these menus.

This is all very impressive, but the program fails to take advantage of their full potential. There are pages and pages of unbroken green-on-black text that are just calling out for diagrams or 'hot spot' buttons to make things more interesting. Some of the new diagrams are extremely good, putting across information concisely and clearly, but there are nowhere near enough. The text itself is pretty good; it's lucidly written and very informative without being too heavy, but endless pages of the stuff is daunting.

A free supplementary *Total Concepts* book dealing specifically with the extinction of the dinosaurs also comes with the program. Good value for money, sure, but it's even more of a slog than the main program – no pictures or diagrams at all.

The *Total Concepts* books promise a lot, and they could be great. But while this example is worthy, it is undeniably a tad dull. Check out the PD versions first and see what you think.



In the new licenceware version of *Dinosaurs* there are lots more diagrams... but not enough

IN BRIEF

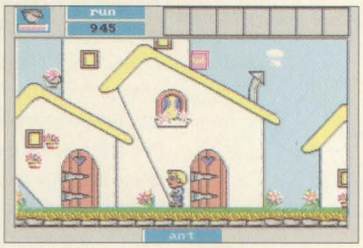
Type	Licencware
Registration fee	£4.95
Authors	Nik Sullivan & Chris Zamara
Requirements	512K
Disks	Two
Available from	Vally PD, PO Box 15, Peterlee, Co Durham SR8 1NZ ☎ 091-587 1195

AMIGA 76%

Word Rescue

Apogee produces probably the best PC shareware games in the world. It has developed an instantly-recognisable style of multi-level platform game that has been universally acclaimed. Unfortunately, when it comes to educational games Apogee needs to go back to school.

Word Rescue looks great, plays brilliantly, has more levels than a New York car park but is totally unsuitable for the age group at which it's aimed. Basically it's too darned difficult. The educational element of the game, a simple case of matching words with pictures, is appropriate for four to six-year olds, but the gameplay will be totally beyond them. It took me a good ten minutes to complete the first level, and I'm a fair few years beyond the primary school age, I can tell you.



It's an Apogee game, so that means platforms, or in this case roofs, to leap about on

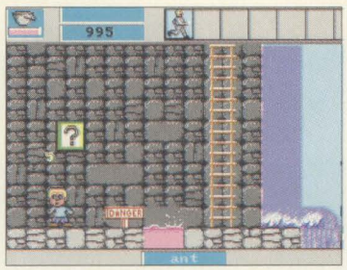
The basic plot is complicated enough: Gruzzles can't read. And since Gruzzles are small and green and nasty, they don't like anybody getting the better of them, so they're going to make sure that nobody else can read either. They do this by nicking all the words out of books and hiding them.

But reading isn't the only thing with which they have difficulties; they seem to find the concept of hiding things rather hard to grasp as well. All they seem to do with them is leave them hanging around in mid-air waiting to be collected. And that's what your child has to try to do.

At the start of each level there are six question marks dotted about in various places. Your child moves their character around the screen using a joystick or cursor keys looking for these question marks. Strangely for an Apogee game this character has no name (like Cosmo or Keen). I think the idea is that the child actually pretends that it is them leaping about on-screen; when the program is first loaded it asks for the player's name then gives them the choice of either playing a girl or boy character, which is rather a nice touch.

When the player does find a question mark they leap through it to make it change into a word. Simultaneously all the other question marks change to pictures. One of these will match the word that has just been revealed.

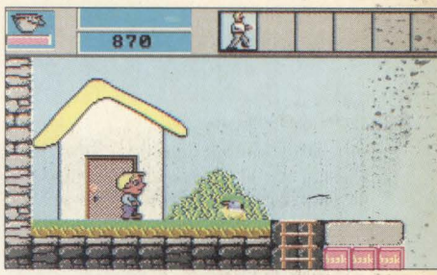
The next task is to find this picture and jump up to grab it. If your child locates the correct picture then it vanishes from play and reappears in a grid at the top of the screen. The remaining pictures then turn back into question marks and the process starts again. This carries on until you have matched all the words to the pictures and filled the grid. Then Benny the Bookworm parachutes in on an umbrella like an invertebrate version of Mary Poppins and puts the words back into the books in an overlong and pretty tedious sequence. Now all that's left to do is locate the exit (usually a pretty prominent wooden door) and then it's on to the next level.



Leap up to the question mark to find out what picture you should look for next

Collect the wrong picture, though, and the news is not so good. An angry Gruzzle appears and if he catches up with the player's character then it's instant death. Or at least it would be except that the game provides infinite lives. All that happens is that the player restarts back at the beginning of the level on which they died. Gruzzles are not invincible, however. Benny the Bookworm is ever-ready with a bucket of slime. So long as the player's character is facing towards the Gruzzle one press of the space bar summons Benny who proceeds to pour the gunge over the ghastly green ghoulie.

The graphics are exceptional and the animation smooth. There are no quibbles there. But the game is just too hard. Not only are the rules over-complicated for youngsters, but the co-ordination necessary to control the action is also pretty advanced. The educational element takes a back seat to the gameplay, and that's bad news.



This is the exit from this level but I can't leave yet as I've only matched one word and picture

There is a choice of difficulty levels, the toughest of which is for eight to 11-year olds at which age kids should be able to handle the gameplay, but surely they should be well beyond the 'matching-words-to-pictures' stage?

Which is a shame, because *Word Rescue* is a very polished game in terms of presentation. Older kids might even enjoy it, despite the educational elements. But the only kids who would find it a useful learning experienced are middle school kids who've never learnt to read because they've bunked off school to go down the arcades.

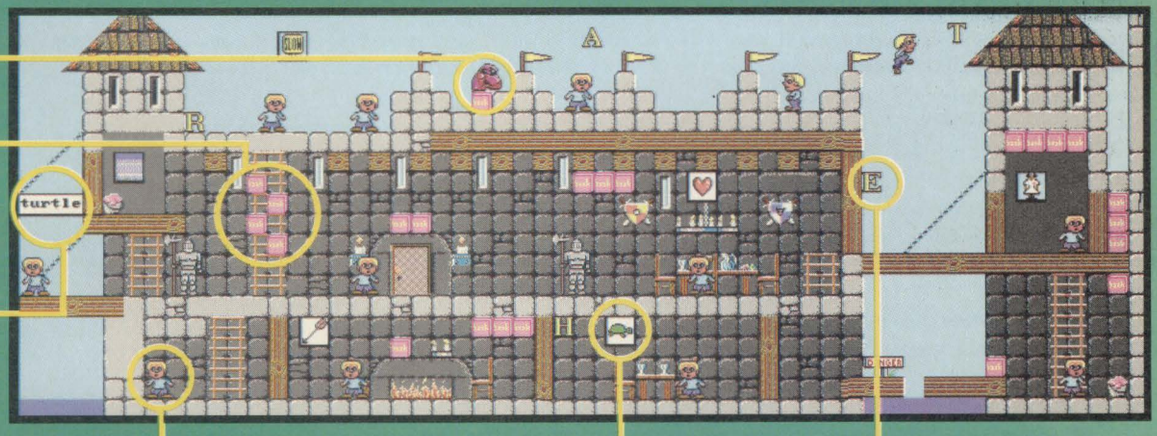
IN BRIEF

Type	Shareware
Registration fee	$30
Author	Karen Crowther & Bud Pembroke
Requirements	640K • EGA
Available from	PSA, 10 High Street, Tadlow, Royston, Herts SG8 0ES ☎ 0767 23302

PC 70%

cont. on p62

What to do, where to go and how to go about it. Level four blown wide open



Nasty blobby Gruzzles can be destroyed by getting Benny to drop some glop over them

As you leap about the level you can collect books as you go along to gain extra points, but you can complete a level without collecting any

Having leapt through a question mark a word reveals itself. Now you have to find the picture that matches it

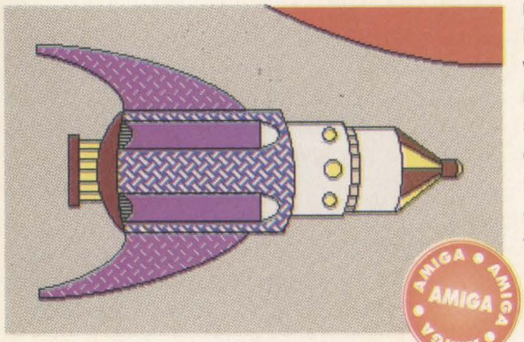
This is your character. Unlike other Apogee games it doesn't have a name and can be either a boy or a girl so that you can pretend it's you in the game

Yep, that's the picture you're looking for. Leap up and grab it, and all the other pictures will revert to question marks

Collect these yellow letters in the correct order to form a word and earn mega bonus points

cont. from p61

Paintbox



You too could produce masterpieces like this patchwork quilt space rocket with *Paintbox*, with a lot of patience...

Modest is one thing this program is not. "Welcome to *Paintbox*, the best colouring and drawing program for younger children," proclaims the demo-like scrolly message at the bottom of the main menu screen. There's some very demo-like music wailing about in the background too. Things look good.

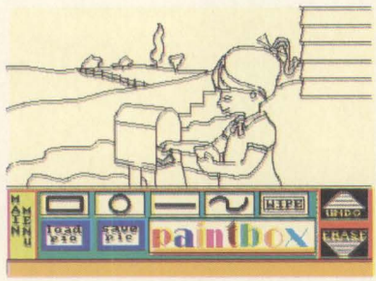
And they continue to *look* good, but that's about it. In terms of aesthetics *Paintbox* is great, but its playability is limited by a lack of interesting features.

It is split into two sections: Draw and Colour. Enter Draw and you have four drawing options: freehand (ie, click on the mouse button and move it around to draw whatever you want), rectangles, circles and straight lines. Freehand drawing is pretty smooth, but when you use the other options the shapes flicker like a kitchen light coming on until you release the mouse button; this is very annoying and doesn't help when you're trying to line things up accurately. The lack of any other drawing option makes it difficult to come up with any particularly good pictures. Still, at least the control system is easy to get the hang of and kids should have few problems understanding what to do.

Once you have drawn your picture you can go to the colouring section. Alternatively you can colour in one of the ready-drawn pictures that come with the program (though I'm pretty certain they weren't created using the program).

This section is much more fun. For a start there is a decent range of

One thing the program does have going for it is a decent selection of colours and patterns



This is the drawing area of *Paintbox*. Here I've loaded up a pic that comes with the program – you'll be lucky to create anything as good!

colours – 31 in all – and 10 different fill patterns to give your pictures different 'textures' as opposed to just different areas of colour. The colour selection area fills the whole screen but vanishes once you have chosen a colour and pattern. Fair enough, but I prefer it when you can look at the choice of colours that you have and the picture at the same time; it makes deciding which one you want a bit easier, especially if you are using different shades of the same colour.

But it's all a bit so-so. There is nothing very exciting or original about it. Kids programs need to be simple, sure, but not so basic they lose any interest value after a couple of plays. *Paintbox* isn't the best children's art program by a long way – there are some great examples on the PC and the ST such as *EGA Colouring Book* and *Splash* (reviewed in issues four and five respectively) – and Amiga programmers should take a look at these then go back to the drawing board.

IN BRIEF

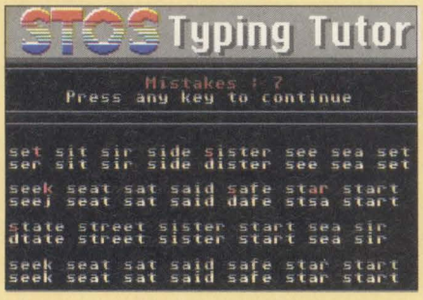
Type	Licenceware
Registration fee:	£3.50
Author	Sancho
Requirements	1Mb
Disk Number	LPD70
Available from	Déjà Vu, 25 Park Road, Wigan, Lancs, WN6 7AA ☎ 0942 495261

AMIGA 70%

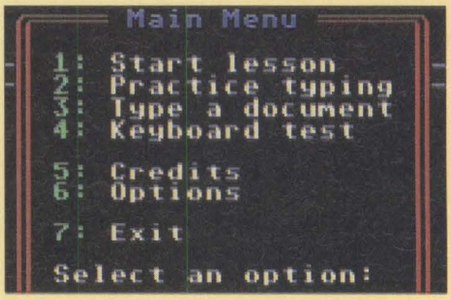
STOS Typing Tutor

Calling this program a tutor is a bit misleading. OK, so it's PD, but that's no reason to name it something that could trick people into ordering it under false pretences.

That's not to say that it's a bad program, far from it. But the only people who will find it useful are those who already have some idea about touch typing and need a challenge to brush up on their technique. Complete beginners will be none the wiser after a few lesson with *STOS Typing Tutor*, as it gives no information about which fingers should press which keys.


STOS Typing Tutor
Mistakes : 7
Press any key to continue
set sit sir side sister see sea set
ser sit sir side dister see sea set
seek seat sat said safe star start
seej seat sat said dafe stsa start
state street sister start sea sir
dtate street sister start sea sir
seek seat sat said safe star start
seek seat sat said safe star start

Oh dear, seven mistakes! And I'm not going to let you see the next screen where it says how long it took me!



Here's your options, and yes, type a document does mean that you can import and practice on your own files

What it does provide is a series of practice sessions which give you an instant assessment of your performance in terms of accuracy and speed. There are 82 standard lessons which start with simple drills using just a few keys and words of no more than three letters, while the more complicated levels involve typing in proper sentences which include capitals, punctuation and numbers.

They all take the same form. Four lines of words or letters that you have to type in appear on-screen. As you tap the keys, the letters you type in appear below the ones already there. Once you have completed all four lines the program highlights any mistakes you have made, and then displays the assessment screen. This gives you your percentage of accuracy and you typing speed in words per minute. For each level you have to achieve a certain degree of competance in terms of speed and accuracy, and the computer will inform you if you have not done so. Oddly, however, this does not stop you from progressing to the next level. OK, so this isn't a game, but this might have made the underachiever more determined to improve.

If you get bored with the lessons provided on the disk you can import any text file you have hanging about and use that for practice. Again the program compares your typing to the original and comes up with an assessment. There is also a gruelling test in which you have to type in the keys highlighted on an on-screen keyboard as fast as possible.

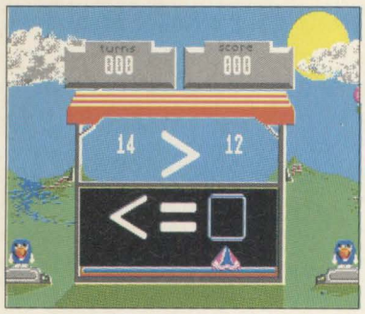
One oddity is that you can actually delete letters you have typed. Admittedly this does slow down your overall speed, but it still seems like cheating to me. The accuracy percentages are also a bit hit or miss; twice I had one mistake, but was given a 100 per cent score.

But if you want to practice your typing and have an instant indication as to whether your performance is improving, the totally free *STOS Typing Tutor* is less frustrating than copying paragraphs out of a magazine with a stop-watch and calculator on stand-by.

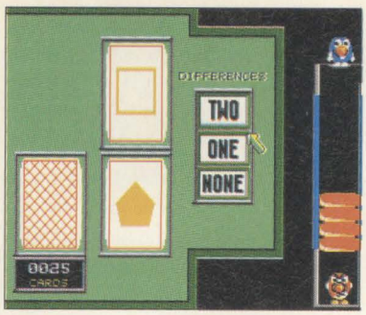
IN BRIEF

Type	Public domain
Author	Richard Gale
Requirements	512K
Disk Number	M406
Available from	Compute In Style, 64 Castle Hill Road, Hindley, Wigan, Lancs WN2 4BJ ☎ 0942 522970

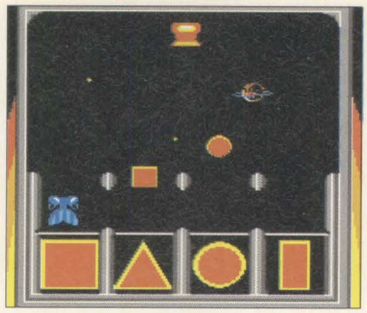
ST 69%



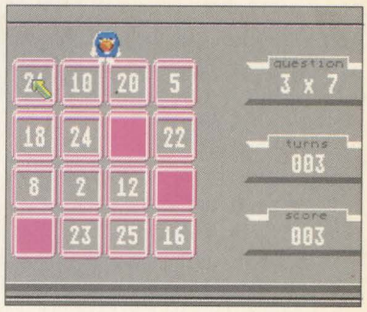
The Relational Game: you are presented with two figures and have to work out whether the first is greater than, less than or the same as the second, and insert the correct sign using the moving pointer at the bottom



The Card Game: one of the best. You have to work how many ways the card at the bottom differs from the one at the top. Wild cards from the pack can change the top card, give you extra points, or take them away

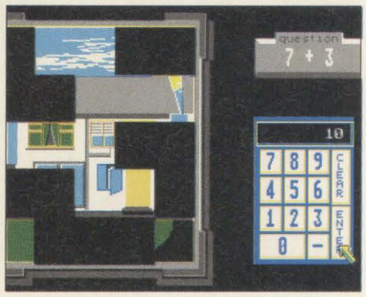


Space Invaders: shapes fall from the spaceship at the top. If they fall towards the same shape at the bottom you let them go. If they fall towards a different shape then you blast them out of the skies. Joystick controlled



The Grid Game: your mission – to blank out every square in the grid. Mission plan – work out the answer to the sum on the right and find it on the grid. If you are correct then the square will be erased. Good luck

Early Learning Maths



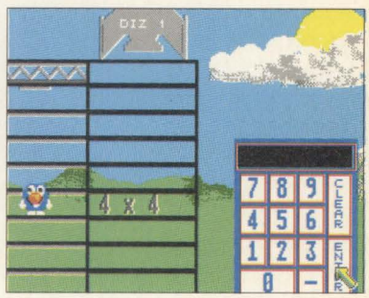
Picture Displayer: this is the house that Dizzy built (or *is* building, in this case). Whenever you get an answer correct a section of the picture magically appears. It's a shame that it is always the same picture, though

A dozen maths games that are so much fun the kids'll never guess that they're doing them some good...

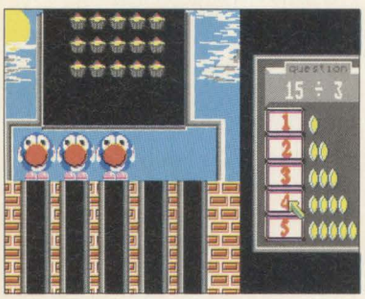
Not one, not two, not three, but 12 great educational games can be found on this Budgie compilation disk. And they're not just a potpourri of miscellaneous programs dredged from bulletin boards and lumped together on a disk. All the games on *Early Learning Maths* come from the same programmer, Philip Rankin, and have a common theme: Dizzy.

Yep, the star of *Dizzy Funtime* (reviewed back in issue two) is back. He looks a bit worse for wear this time, admittedly, but take no notice of the rough edges – the games are every bit as good. They cover a wide range of mathematically-related topics, from basic addition and subtraction to shape recognition and counting. The problems are all wrapped up in colourful, easy to play games that disguise the basic subject (maths, ugh) with varying degrees of success, but each is a hell of a lot more fun than using boring old text books. Three levels of difficulty makes the collection ideal for any kids from four to seven.

Animation is used sparingly but to great effect, and the graphics are very polished. Even the least impressive of the games are good, standard educational software, and the best would score high marks if released on their own. Despite some irritating music and a couple of minor drawbacks it's a superb compilation which no ST owner with young kids should be without.



Rocket Launch: not one of the best games. Simply answer the sums using the calculator on the right to enter the digits. Correct answers mean that you progress up the gantry. Pity the rocket doesn't take off when you reach it



The Division Game: if you have 15 cakes to divide between three Dizzies how many does each get? This is the kind of earth-shattering problem that this game addresses. Excellent presentation makes division less daunting

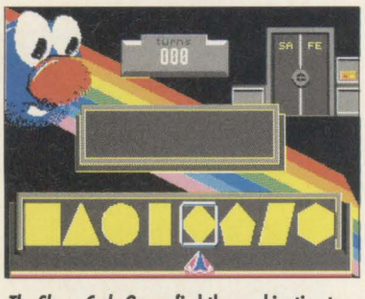
IN BRIEF

Type	Licenceware
Price	£3.95
Author	Philip Rankin
Requirements	512K
Disk Number	PR026ST

Available from
Riverdene PDL, 30a School Road, Tilehurst, Reading, Berkshire RG3 5AN
☎ 0734 452416

ST 94%

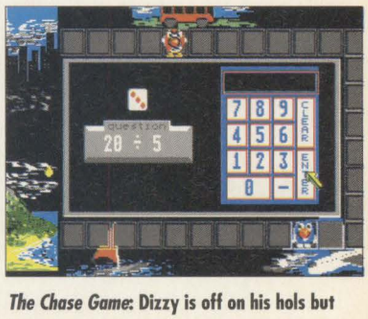
The Equation Game: a sum appears in the top panel for a few moments then fades. The elements of the sum then reappear all mixed up in the bottom panel. You have to rearrange them before the meanie catches up with Dizzy



The Shape Code Game: find the combination to open the safe. A series of shapes appears in the top panel then fades. You have to click on the bottom row of shapes in the correct order

The Counting Game: simple concept, but what an attractive presentation. Count how many objects appear then click the mouse when the slider at the side points to the correct number

The Symbol Game: works on the same principle as the *Relational Game* but this time you have to insert the correct mathematical symbol in the space to make the sum balance



The Chase Game: Dizzy is off on his hols but Meanie is on his tail. Dizzy moves with every correct answer while Meanie progresses when you get your sums wrong

cont. on p64

cont. from p63

Lugnut City

This *Lugnut City* place is a mite peculiar, and you're stuck there, desperate to get out. Its maze-like structures are not built from bricks and mortar, but blocks of sums (no wonder you want to escape).

The game, which combines very basic elements of platform, puzzle and shoot-'em-up games, is aimed at seven- to 10-year olds. It comprises a series of levels, each of which is a maze of coloured blocks. The player's character is a small, wheeled robot which is controlled using the cursor keys. A press of the spacebar will activate the robot's laser gun. If the laser beam hits a block then it will either be obliterated or reveal a mathematical problem that has to be solved before the block will vanish.

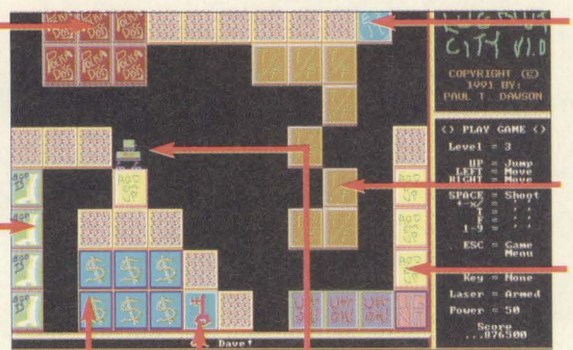
The mathematical problems come in various types. When you blast blocks marked Polka Dots they reveal a number of dots which you have to count. Blocks marked T/F reveal a sum complete with an answer which may or may not be correct. Add-'Em-Up blocks have incomplete sums where you have to provide the missing numbers. Uh Oh blocks have three layers of numbers but the mathematical functions (plus, times, minus and divide) are missing and you have to work out which one applies.

In all cases you type in the answer on the keyboard, whether it's a number, T or F (for true of false) or a mathematical function. Strangely, in the latter case, while plus, divide and minus can all be tapped in on the numeric keypad, if you want to indicate multiplication you have to use the X key. The logic is probably that the * used for multiplication on a computer will not be as familiar to kids as the x sign, but the / used for division is not like the classic text book divide sign either.

If the answer is right the robot's laser lashes out once more and the block is destroyed. The aim is to clear your way to the exit square and get to the next level. To do this you have to collect a key and a few boot-ups (which are represented by blocks with boots on!) as well as blasting the maths blocks.

The main problem with the game is that it becomes repetitive very quickly. For a level or two it provides a fairly good balance of gameplay and educational value, but it never becomes any more difficult; the layout of the levels changes, and that's it. There is a facility for designing your own levels, but you can't make them any harder, just different. The graphics and sound are pretty basic and lack the appeal that kids' games need. It's good for a few plays but it'll probably be forgotten very quickly.

What you get when you blast those blocks


Polka Dot blocks reveal a number of dots that you have to count
These are the boot-ups you need so that the robot can make higher jumps
The exit, usually placed quite high up so you'll need some power-ups
True or false questions are hidden in these
Blast these blocks to reveal a tricky addition
These are just a nuisance that make getting to the key a little bit harder
Though you can leave without solving all the sums you'll need the key
This is the robot that you move around using the cursor keys

IN BRIEF

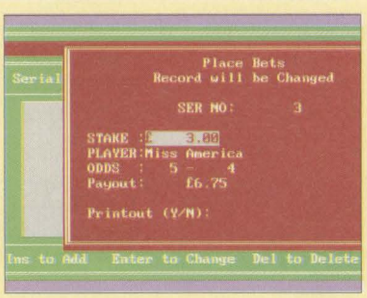
Type	Shareware
Registration fee	$10 (£6)
Author	Paul T Dawson
Requirements	512K • EGA/VGA • 286 processor and upwards
Disk number	E074
Available from	Wise Owl Software, 32 Charney Avenue, Abingdon, Oxfordshire OX14 2NY ☎ 0235 529808

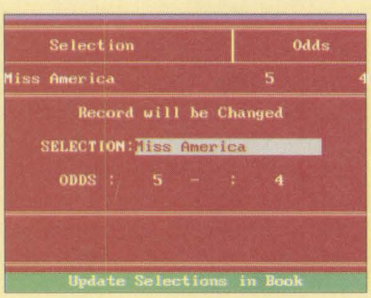
PC 68%

Turf

You always get someone in every office or club who runs a book at the slightest opportunity. Whether it's for the Grand National or who the boss' secretary is going to get off with at the office party, there's always someone bitten by the betting bug.

The problem is keeping track of who bet what, when and at which odds, and how much winners should be paid. And for the person running the book trying to balance the odds so that the pay-out doesn't leave them a couple of hundred quid out of pocket is a nightmare of mathematics. And this is where *Turf Accountant* can help out the amateur bookie.





Each bet is given a serial number. Entering the details is simple and odds can be changed at any time

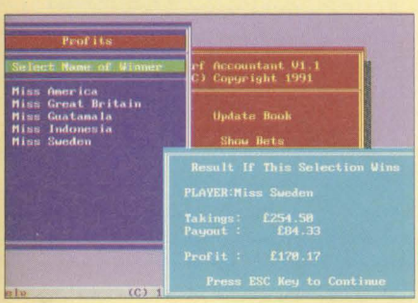
Despite the name *Turf Accountant* can be adapted for any kind of event where bets can be placed. The program is clear, completely menu-based and fairly intuitive to use. When you first boot-up, the main menu offers you the choice of entering various sub-menus: one for setting the details of the time and place of an event (or as it is called in this program, a meeting) and the odds; another for entering details who placed a bet on what; and one for calculating the various payouts for each possible winner and any possible profit the bookie might make.

So, say the office is placing bets on how many times the photocopier is going to break down in a week. In the Update Book menu the bookie enters the details of the 'meeting' then enters the various possible number times it could break down – zero, one, two, three, four, five, six and over, perhaps – then assigns odds to each. Then, as each person decides on which number they want to risk their money, the bookie notes where they have placed their bet in the Show Bets menu.

Each person betting is assigned a serial number, which is fair enough, but it would have been preferable if the program had offered the facility for entering names, because as it stands the bookie still has to make a separate list of which serial number belongs to which person. To be fair, the program offers the facility for printing out betting slips with the serial number on, so this should prevent any disputes.

Finally, the Show Profits/Payouts menu shows the bookie how much he will have to pay out if a particular selection wins. This enables him to constantly alter the odds to make sure he is not left drastically out of pocket, and also means he can try out various what-if situations.

The documentation reckons that the program could be used professionally, but I doubt it. It is really far too limited and has no facilities for triple stakes or accumulators or other more complex betting structures. But for more informal betting it is a very handy piece of coding for keeping track of what's going on.



This window shows how much money the bookie will have to pay out if a certain selection wins

IN BRIEF

Type	Shareware
Registration fee	£9.95
Author	Aciran Software
Requirements	512K
Disk number	1023
Available from	Aciran Software, 29 Duncryne Place, Bishop Briggs, Glasgow G64 2DP ☎ 0494 431861

PC 72%

PUBLIC DOMAIN

ORDER FORM

CUSTOMER

NAME.....

ADDRESS.....

.....

.....

.....

POSTCODE.....

TELEPHONE.....

SUPPLIER

COMPANY.....

ADDRESS.....

.....

.....

.....

POSTCODE.....

TELEPHONE.....

HOW TO ORDER

Use this page to make ordering your public domain or shareware product easier than ever!
Simply cut out this page and fill in your order details, then simply follow the folding instructions overleaf and you are ready to post your order.
Even if you order by phone this is still an invaluable record of your transaction.

ADVERTISEMENT DETAILS

ISSUE NUMBER.....

PAGE NUMBER.....

COMPANY NAME.....

● ORDER DETAILS ● ORDER DETAILS ● ORDER DETAILS ● ORDER DETAILS ●

QUANTITY	FORMAT	DESCRIPTION OF GOODS ORDERED	UNIT COST	TOTAL

SURCHARGES

TOTAL £

PAYMENT DETAILS

Please circle CHEQUE POSTAL ORDER CREDIT CARD OTHER .....

TYPE OF CREDIT CARD Please circle ACCESS VISA AM EXP OTHER .....

CARD NUMBER | | | | | | | | | | | | | | | | EXPIRY DATE | | | | |

SIGNED DATE .....

DELIVERY ADDRESS IF DIFFERENT FROM ABOVE

.....

.....

.....

2. Fold back here

3. Fold back here

TO

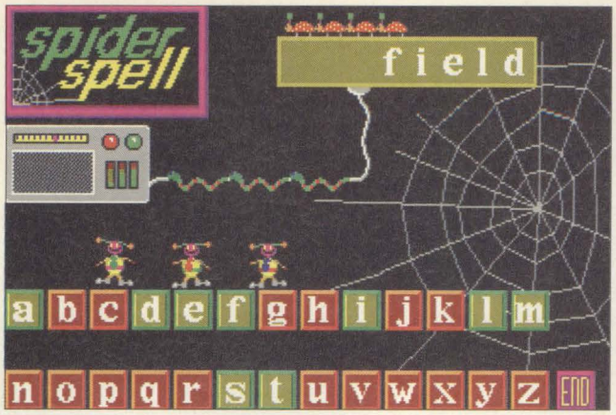
AFFIX STAMP HERE

4. Fold back here and tuck in flap

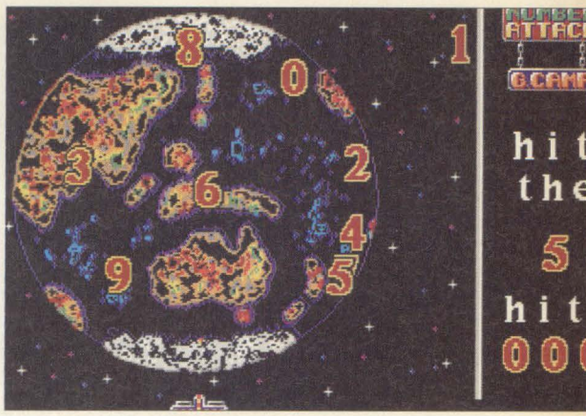
1. Fold back here

from 64

They've sent us Sir Les Patterson. They've sent us *Neighbours*. But not everything they export is about as worthwhile as a velcro fastener to a kangaroo, as these superb maths and spelling games prove...



Spider Spell is the real gem of this excellent compilation. Basically a version of Hangman it features the strangest bugs you're ever likely to encounter



The bonus level of *Maths Action* is a very impressive-looking blast-'em-up where you have to hit the selected number

Undersoft Collection

Strewth, cobber! Those antipodeans don't all spend their spare time guzzling the Fosters and ogling the Sheilas. The evidence? This excellent collection of early learning software from Undersoft.

All the games combine simple gameplay with straightforward controls and quality graphics and sound. The various difficulty levels mean that all the games are suitable for any kids from intelligent three-year olds to eight-year olds. Best of the bunch is *Spider Spell* which is a variation on the Hangman theme. The player has to reveal a word (of three to eight letters depending on the difficulty level). The letters are chosen by mouse-clicking on a grid at the bottom of the screen. Also on-screen are a spider's web, a panel showing the number of blank letters that have to be filled and a ghetto blaster. (All will be revealed.)

When a letter is chosen a spider appears and picks it up. If the letter is in the mystery word the spider deposits it in the word panel in the correct position. If it's not, then it's dropped into the web to become bug fodder. A strange ladybird-like creature bounds on to the screen, roasts the poor letter with its fiery breath then sits smugly on top of the word panel. If the player has not guessed the word by the time eight bugs sit atop the panel then that game is lost. If the player guesses the word, then a worm crawls up to the ghetto blaster.

The aim is to get three words right, at which point the third worm crawls into place behind its predecessors and completes an electric circuit which starts the ghetto blaster blaring. Three weird bugs then leap into a frenzied dance.

As you can tell there is a great deal of movement, and the animation, while not spectacular, is appealing. The sound and songs are also very good. A dictionary of over 4,000 words means that you don't get the same ones cropping up again and again, a common fault with this sort of program.

Also on the disk is *Maths Action* which is divided into two games, one for plus and minus sums, the other for multiplication and division. The player has to answers ten maths problems. Although presented as traditional figures and mathematical symbols the presentation is bright and bold so the playing experience is far from dull; you enter the answers for instance, using a red and yellow slide-rule affair at the bottom of the screen.

A refreshingly clear and not-too-irritating digitised voice – with a distinct Australian accent, would you believe? – reads out the figures and the answers as they appear, and congratulates the player or offers commiserations as required.

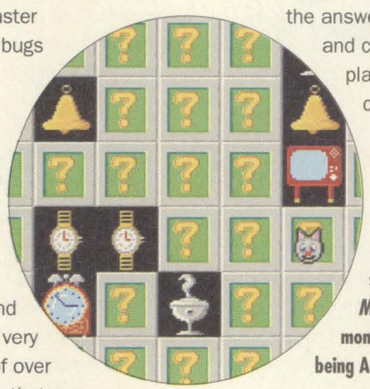
If they get them all correct they're awarded with a bonus level. This takes the form of a simple blast-'em-up where they have to shoot flying numbers. It is actually very tricky, and only one mistake is allowed. Coupled with cursor control which is about as responsive as dead fish, perhaps it is just a touch too difficult for the age group at which it is aimed.

There are six levels of difficulty and the sums can get quite hard with answers in the hundreds and more than two figures with which to contend. But there are no time limits, so the problems can be worked out on paper. The only major problem with the game is that if you hit Enter before you have entered an answer the program crashes, so proceed with care.

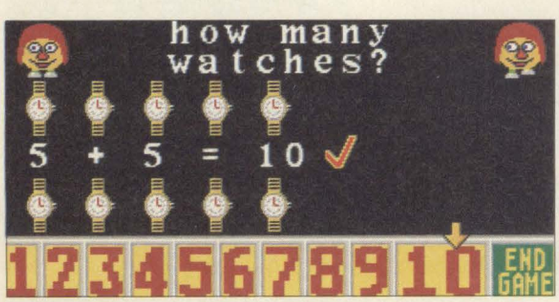
First Maths is a simple counting, addition and subtraction program where the sums are represented by objects. Y'know the old tried-and-trusted, "If you've got four apples and then someone gives you four more how many have you got?" method. Very basic, but extremely colourful which excellent use of graphics and sound to make maths a less painful experience for the very young.

First Maths also includes a version of match pairs, where you are presented with a set of cards placed faced down, and you have to turn them over two at a time and hope to find pairs. Good test of the memory this one, and makes use of the same objects used in the main game.

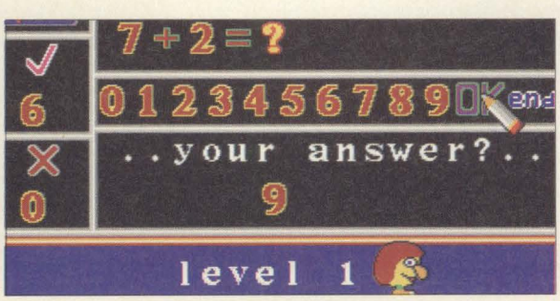
In all, a great compilation. It has a couple of niggly drawbacks, but the disk is well worth checking out for *Spider Spell* alone. It's certainly a much better cultural export than *Home and Away*.



Where would this section be without a *Match Pairs* game? This month's has the novelty of being Australian in origin



In *First Maths* you count two sets of objects then add them up or take them away. The pictures help kids to understand the concepts



***Maths Action* features sums presented in a more traditional fashion, but the novelty in this game is the digitised voice, with an Australian accent!**

IN BRIEF

Type	Licenceware
Price	£3.95
Author	Geoff Camp
Requirements	512K
Disk number	PR025ST

Available from
Riverdene PDL, 30a School Road, Tilehurst, Reading, Berkshire RG3 5AN
☎ 0734 452416

ST 85%

cont. on p68

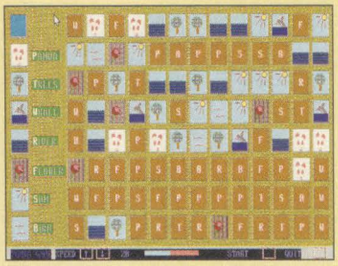
cont. from p67

The Panda Game

Sometimes the simplest ideas are the best. Take *Panda* for example. A word recognition game for five- to seven-year olds, its premise sounds deceptively dull, but it is, in fact, extremely good fun.

Down the lefthand side of the screen are seven icons: a Panda, Trees, a Whale, a River, Flowers, the Sun and Birds. The rest of screen is a grid of 104 cards, some of which display pictures of these icons, others the letters with which they begin. You have to click on one of the icons, say Panda, then click on all the cards that carry the letter P to turn it into a picture. Then you choose another icon and click on all the cards that feature the letter it begins with, and so on until there are no letters left on the grid.

You only have four minutes to complete the task, and the game has trick up its sleeve; the letters change! So you might think you've got all the Ps, but then another one appears.



Clicking on all the cards that begin with 'P' would be easy if they didn't keep changing

It's a pity that the pictures are the same for each game. A bit of variety would have improved both the entertainment and educational value. But it looks impressive, the controls are simple and responsive and it has a high addiction factor.

IN BRIEF

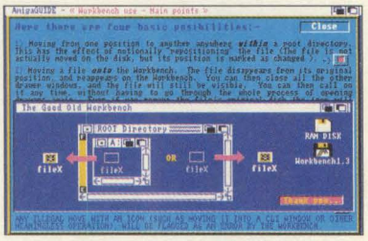
Type	Shareware
Registration fee	$10 (£6)
Author	Panda Studio Inc
Requirements	512K • EGA/VGA
Disk number	E040

Available from Wise Owl Software, 32 Charney Avenue, Abingdon, Oxfordshire OX14 2NY ☎ 0235 529808

PC 74%

AmigaGUIDE

Let's face it. When you get your computer you want to get to work on it immediately, but if you're a complete beginner, you're going to have to learn about it first. And that usually means having to sit around with a boring old manual that is yawnsome in the extreme. Not so if you have *AmigaGUIDE*.



***AmigaGUIDE* makes great use of diagrams to teach beginners about using the Amiga**

Assuming that you've learnt where the on switch is and where you have to stick disks to make programs appear on the monitor (unfortunately you'll need a boring old manual for that if you're having problems) then *AmigaGUIDE* can help you through all the basics from file operations to AmigaDOS. It also covers topics such as graphics, the RAM disk and video effects. You select which subject you want to learn about from a very snazzy menu screen. Most of the subjects are explained with copious amounts of diagrams; the explanations of file operations and using Shell are especially good here. There is also a lot of click-to-see-type action which makes things more interesting. Strangely, though, the section on graphics is not illustrated at all and consequently is very dull.

Sometimes the screens looks a bit of a mess, with just too many colours splashed about any old where, but the actual text is very clearly written, if occasionally a bit brief. If you register (a mere 90p!) you receive a bonus disk chock-a-block with handy utilities. The only real drawback with *AmigaGUIDE* is that it's based on Workbench 1.3, which is now a bit out-of-date. Hopefully an update is on the way.

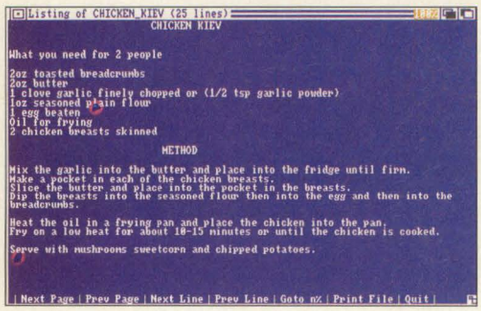
IN BRIEF

Type	Shareware
Author	EdLib
Requirements	512K
Disk number	R15

Available from EdLib, Scotland Farm, Stockwood Road, Brislington BS4 5LU

AMIGA 72%

Layman's Cookbook


Listing of CHICKEN_KIEV (25 lines)
CHICKEN KIEV
What you need for 2 people
2oz toasted breadcrumbs
2oz butter
1 clove garlic finely chopped or (1/2 tsp garlic powder)
1oz seasoned plain flour
1 egg beaten
Oil for frying
2 chicken breasts skinned
METHOD
Mix the garlic into the butter and place into the fridge until firm.
Make a pocket in each of the chicken breasts.
Slice the butter and place into the pocket in the breasts.
Dip the breasts into the seasoned flour then into the egg and then into the breadcrumbs.
Heat the oil in a frying pan and place the chicken into the pan.
Fry on a low heat for about 10-15 minutes or until the chicken is cooked.
Serve with mushrooms sweetcorn and chipped potatoes.
| Next Page | Prev Page | Next Line | Prev Line | Goto nX | Print File | Quit |

Yes this program is as boring as it looks – just a load of menus displayed using the Amiga's *ppMore* utility. How innovative!

OK, so completely text-based software that you view using the *ppMore* utility is nothing new to Amiga PD, but it's a bit much when someone asks you to part with £3.50 for it. Which is exactly what you're expected to do if you want to get hold of *Layman's Cookbook*.

Aimed at people with a busy lifestyle who just can't stand another pot noodle, the program contains over 40 recipes which are quick and easy to make, ranging from beef burgers to salmon savouries. There are starters, snacks, main courses and puddings.

You boot up the disk and a Workbench screen opens with a window that contains drawers for each of the categories. Open up a window to see the recipes. Click on a recipe, and the *ppMore* utility opens displaying the ingredients and the method. And that's it.

Oh, apart from the fact that you can print out the recipes if you really want to. Useful if you have an Amiga in the kitchen, but then wouldn't a good old cook book do the job a lot better anyway? This program certainly offers no advantages. Save your money.

IN BRIEF

Type	Licenceware
Registration fee:	£3.50
Author	Potteries PD
Requirements	512K

Available from Potteries PD, PO Box 435, Longton, Stoke-on-Trent ST3 5XY ☎ 0782 322532

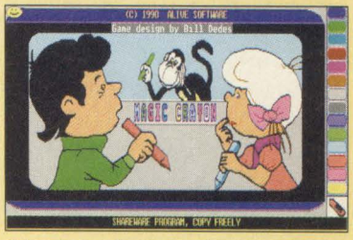
AMIGA 43%

Magic Crayon

Colouring book programs are among the most popular type of PD software for kids, but *Magic Crayon* adds a few twists to the genre.

It contains three games, all variations on a theme, aimed at three to five-year olds. In the most basic, *Colouring Book*, your child is presented with a line drawing which they have to fill in using the 'magic crayon'. This, basically, is the cursor, which they move using the mouse. The program gives the child hints on what colour to fill each area in a colour-by-numbers fashion, except that it uses little coloured blocks instead of numbers. *Colour Shading* is based on those puzzles where you have a picture with what looks like a load of random shapes, but if you colour in certain shapes a recognisable image is formed. In *Colour Memory* your child is allowed to look at a fully coloured-in picture for 30 seconds, then all the colours are removed leaving just the outline. The task is then to re-colour the picture using the same colours.

For some odd reason the program doesn't offer yellow, or even anything near it like orange, in its choice of colours. Very odd.



Colour-by-numbers gets a few new twists

There is a limited, but varied selection of pictures, and registration buys you a disk of 50 new ones. Definitely worth investigating and making up your own mind whether to register or reformat.

IN BRIEF

Type	Shareware
Registration fee	$18 (£10.50)
Author	Bill Dedes
Requirements	256K • EGA/VGA
Disk number	E040

Available from Wise Owl Software, 32 Charney Avenue, Abingdon, Oxfordshire OX14 2NY ☎ 0235 529808

PC 70%

Ed from 67

The best of the rest • The best of the rest • The best of the rest

And lo, it came to pass, that in the first six issues of *Public Domain* a vast array of wondrous software was reviewed in the Home and Education section. But alas, some people were too slow to buy every issue, so the benign people at the magazine provided a much-welcomed round-up...

PC

❶ Compu-Chef — Issue 3 — 92%

PDSL, Winscombe House, Beacon Road, Crowborough, Sussex ☎ 0892 663298

If you're seriously into cooking then you seriously need this program. Packed with recipes, *Compu-Chef* is easy to use and very well-presented.

❷ Wunderbook — Issue 2 — 88%

Softcell Services, 25 Maywood, Drunna Pontydun CF7 9PT ☎ 0443 238630

The fun way for young kids to learn the foreign names for familiar everyday objects. Colourful and simple to use, it covers French, German and Spanish.

❸ Funny Face — Issue 2 — 87%

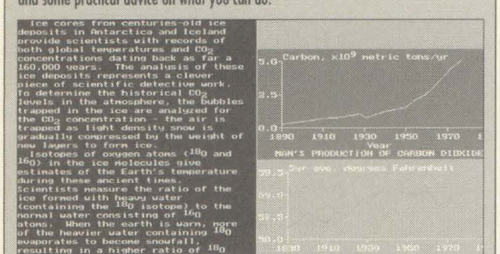
Softcell Services, 25 Maywood, Drunna Pontydun CF7 9PT ☎ 0443 238630

A bit like a police photofit, *Funny Face* is a great fun program for kids all about creating fizogs from a wide selection of facial features.

❹ Save The Planet — Issue 2 — 85%

Fantasia Shareware, PO Box 1231, Clutton, Bristol ☎ 0761 453716

A comprehensive one-off diskzine covering all things green. Lots of frightening figures and some practical advice on what you can do.



***Save The Planet*: all you ever needed to know about green issues**

❺ Meal Master — Issue 6 — 80%

SMS Shareware, 19 Corshalton Road, Camberley, Surrey GU15 4AQ

Not as good-looking as *Compu-Chef* (see above), but offers the same facilities, and there are also loads of *Meal Master*-compatible menus floating around on BBSs.

❻ Henrietta's Book of Spells — Issue 2 — 80%

Advantage, 56 Bath Road, Cheltenham, Glos GL53 7HJ ☎ 0242 224340

A cut-down PD version of the commercial Scetlander game for kids, this is still excellent. Six highly entertaining educational games.

❼ Trees II — Issue 6 — 80%

3 Valley Court Offices, Lower Road, Croydon, Nr Royston ☎ 0767 23302

If you want to keep track of your family history, then this is one of the less painful, and most comprehensive programs for maintaining all that data.

❽ Funnels and Buckets — Issue 2 — 79%

Academy Software, PO Box 65, Herne Bay, Kent CT6 8YZ ☎ 0227 360808

This maths game may look a little primitive but it is very addictive, fast-paced and bound to sharpen up your mental arithmetic. A triumph of substance over style.

❾ Monkey Business — Issue 4 — 77%

Testware, 46 The Avenue, Harrogate, North Yorkshire ☎ 0423 886415

An interactive storybook which features a pair of terrible twins on a trip to the zoo. It may be in mono, but the text, written by an established children's author is great.

❿ Learn To Sign — Issue 5 — 76%

Softcell, 25 Maywood, Drunna, Pontydun CF7 ☎ 0443 238630

If you are learning sign language, then this program is a useful teaching tool which means you don't have to find a partner with whom to practice.

ST

❶ About the House — Issue 3 — 90%

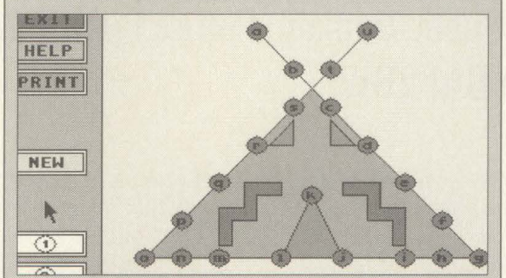
Caledonia PDL, 250 Oldtown Road, Hilton, Inverness IV2 4PT ☎ 0463 225736

Control a butterfly as it flies through a house causing magical things to happen. A genuinely charming game for very young kids.

❷ Dot To Dot — Issue 2 — 90%

Merlin, 11 Grange Close, Minchinhampton, Glos GL3 9DF ☎ 0453 882793

Join-the-dots successfully transferred to computer. The dots in this case can be lettered or numbered for extra educational value and the results can be coloured in.



***Dot To Dot*: classic kids game with some great new twists**

❸ Moonletters — Issue 1 — 90%

Goodman's PDL, 16 Conrad Close, Meir Hay Estate, Longton, Stoke-on-Trent ST3 1SW ☎ 0782 335650

A spelling program disguised as an alien shoot-'em-up. Excellent graphics and sound.

❹ KidStory — Issue 1 — 90%

Risetime, 19 Quarry Hill Road Tonbridge, Kent

Based on the story of *Little Red Riding Hood* this program enables kids to choose props that will appear in the tale, often with hilarious results.

❺ Colourspace — Issue 1 — 88%

Llamasoft, 49 Mount Pleasant, Tadley, Hants ☎ 0734 814478

This creates coloured patterns in response to you moving your mouse. It may sound dull, but turn the lights down, the music up and it's great fun.

❻ Splash — Issue 5 — 85%

Microchoice, 30 Townhead, Kirkintilloch G66 1NL ☎ 041-777 6300

An art package aimed at the very young which is so packed with easy-to-use features – mirror brushes, colour cycling, flood fill – the kids'll have to drag their parents away.

❼ KidShapes — Issue 1 — 85%

Risetime, 19 Quarry Hill Road, Tonbridge, Kent

An art program for young kids this comprises a grid and a number of various coloured shapes that you can plonk on to it. Simple but well-realised.

❽ Betty and Bubby — Issue 5 — 83%

Riverdene, 30a School Road, Tilehurst, Reading, Berkshire ☎ 0734 452416

Betty and Bubby are bookworms whose aim in life is to help youngsters learn about numbers and maths. Three exceptionally well-presented games.

❾ Computer School — Issue 2 — 83%

Riverdene, 30a School Road, Tilehurst, Reading, Berkshire RG3 5AN ☎ 0734 452416

This program makes good use of cartoon-style graphics to help expand your child's mind. Maths, spelling and picture recognition all covered.

❿ Dizzy Funtime — Issue 2 — 82%

Caledonia PDL, Caledonia PDL, 250 Oldtown Road, Hilton, Inverness IV2 4PT ☎ 0463 225736

Eight excellent and wide-ranging educational games all featuring a little blue ball character called Dizzy. The graphics and sound are extremely good.

Amiga

❶ Storyland 2 — Issue 3 — 89%

Amiganuts United,169 Dale Valley Road, Hollybrook, Southampton SO1 6QX

An anti-vivisectionist kids' adventure, but don't think it's going to be heavy going. In fact, it's brilliant fun, and constantly coming up with surprises to make you go, "aahh".

❷ Big Top Fun — Issue 5 — 85%

Vally PD, PO Box 15, Peterlee, Co Durham SR8 1NZ ☎ 091 587 1195

Learning about words has never been so much fun. Four superb games all based on a circus theme. Excellent graphics, great sound and lots of fun.

❸ Play It Safe — Issue 1 — 84%

Déjà Vu, 25 Park Road, Wigan, Lancs, WN6 7AA ☎ 0942 495261

There are hidden dangers lurking around the house, and this game teaches kids to be be on the look out. Great graphics, lots of variety, hours of fun.

❹ Coromandel Voyage — Issue 4 — 83%

GTS, Cucumber Hall Farm, Cucumber Lane, Essendon, Herts ☎ 0707 664654

Based on authentic historical records this program charts the voyage of the ship Coromandel taking settlers from Portsmouth to Sydney. Colourful and informative.

❺ Dizzy Funtime — Issue 2 — 82%

ESP, 32a Southchurch Road, Southend, Essex SS1 2ND

Eight excellent educational games for primary school kids all featuring a cute little blue ball character called Dizzy. The graphics and sound are extremely good.

❻ Lost Treasure — Issue 4 — 82%

Crazy Joe's, 145 Effingham Street, Rotherham, South Yorkshire S65 1BL ☎ 0709 829286

Map reading can be fun as this colourful treasure searching game proves.

❼ Words — Issue 4 — 80%

GTS, Cucumber Hall Farm, Cucumber Lane, Essendon, Herts ☎ 0707 664654

A handy, two-disk compilation of programs all with a lexigraphical theme. Everything from a crossword creator to a word finding utility.

❽ Golf Score Analyser 1.82 — Issue 6 — 79%

NBS, 1 Chain Lane, Newport, Isle of Wight ☎ 0983 529594

Not only can you keep track of your golf scores with this program, you can also work out average scores and print graphs showing the improvement in your performance.

❾ Word Factory — Issue 1 — 78%

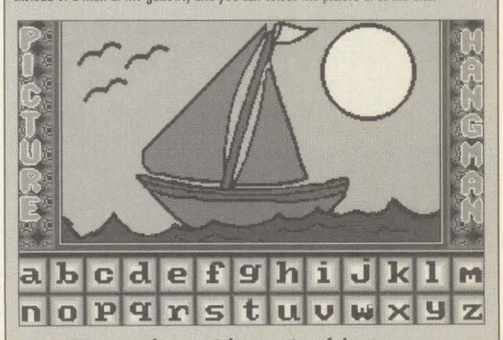
Déjà Vu, 25 Park Road, Wigan, Lancs, WN6 7AA ☎ 0942 495261

A spelling game for very young children that is set in a factory. A wide selection of words, brilliant graphics and simple to understand gameplay.

❿ Picture Hangman — Issue 6 — 78%

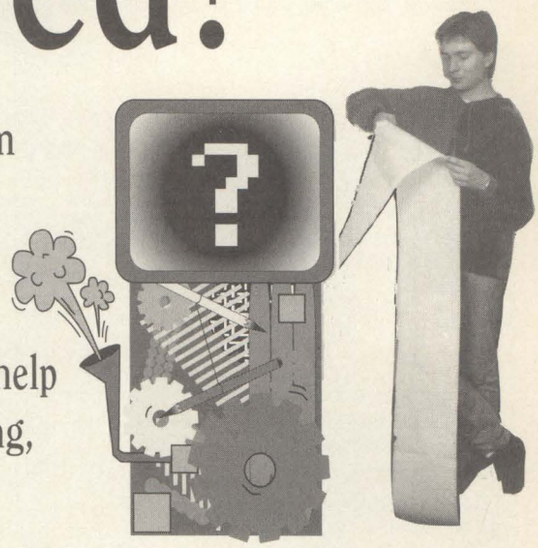
Déjà Vu, 25 Park Road, Wigan, Lancs, WN6 7AA ☎ 0942 495261

Hangman with an extra twist – a picture of the word you are trying to guess appears instead of a man at the gallows, and you can colour the picture in at the end.



***Picture Hangman*: the non-violent version of the game**

Problem Solved!



Where do you turn if you have a PD or shareware problem? To Tim Howell and the amazing PDQ computer, that's where. Whether tracking down obscure software or sorting out your technical queries they're the hottest investigative duo since Starsky and Hutch, and they don't wear polyester flares. If you think they can help you write now to: Help Me PDQ, Public Domain, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW...

Printing and killing

Q I have some queries after reading the first few issues of your magazine:

1 When a printer is called a 'colour' printer, does this mean it can print out proper colour? For example, could I print from an art package such as *Canvas*? Or does it mean that you can put colour ribbons in it and print something all in one colour?

2 *Public Painter* seems just what I need, but you say it only works in mono. Does this mean I need a high resolution monitor or can I run it on my television set?

3 Is there a PD virus killer for the PC?

Thanks for your help.

Tom Bartlett, London

A *What a lot of questions – PDQ really had to wrap its disk drive around some of those. Here goes...*

1 *A colour printer is indeed capable of printing out images similar to those you would see on a colour monitor or TV. Unlike normal black and white printers, which have one black ribbon, colour printers have a four-coloured ribbon – red, blue, yellow and black – and combine these colours to create a complete range of colours and shades.*

2 *I don't think we've reviewed a program called* Public Painter *before, but even if it does say it needs a mono monitor to run, you should be able to use it. What you need is a piece of software called a mono emulator, a program that makes your ST pretend it has a high resolution monitor connected to it instead of the more common colour monitor or TV.*

You can get such a program from most ST PD libraries, or you could try the one that comes with the disk cataloguing program JJ Files *on disk AU143 from Caledonia PDL, 250 Oldtown Road, Hilton, Inverness, Scotland IV2 4PT ☎ 0463 225736.*

3 *Yes, there are a number of PD and shareware virus killers for the PC. One of the most common, and one that is regularly updated, is McAfee's* Scan and Clean. Scan *is responsible for scanning disks to find the viruses, while* Clean *gets rid of them.*

Virus tips

Q I am a proud owner of an Amiga 500. I am a complete novice and wish to know the answers to the following:

1 What is a virus?

2 How do I prevent getting one?

3 Which is the best virus-killing disk?

4 Is a virus capable of destroying or harming my hardware?

5 Is there a beginner's guide to computers in disk form that a total buffoon like myself can follow? I have given up on my instruction manual.

A N Storey, Sunderland
Tyne and Wear

A 1 *A virus is a very small program that can copy itself to other disks and is capable of destroying data and even wiping disks and hard drives completely. There are a number of different types of viruses around, some of which can be a lot harder to get rid of than others.*

The most basic type is the bootblock virus which copies itself to the bootblock of a disk – the part of the disk that the computer looks at first when it is put into the drive. While these can render a disk useless, they are relatively easy to get rid of as they are always found on the same part of the disk.

More difficult to kill, and much more dangerous, are link viruses. These attach themselves to the files on a disk and whenever the file is used the virus attempts to spread elsewhere. The files they attach to are not always recoverable.

There are a few other strains, but these are the most common.

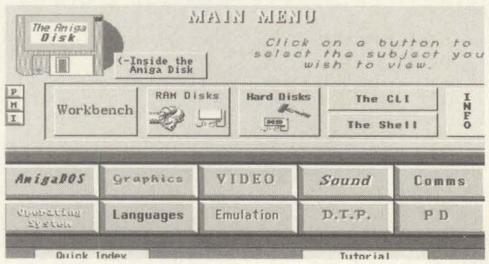
2 *Because of the way PD software is distributed – people copying it and passing it on to each other – viruses can be easily spread. Your disks need not get infected by viruses if you follow some simple steps.*

Whenever you get a disk, regardless of where it comes from, check it for viruses using a virus checking utility. Be careful if you check commercial programs such as games; they often use custom non-standard bootblocks which some virus checkers warn could be a virus. If these bootblocks are cleared, as they would be with a virus, then the disk might not be able to load. Regularly check your disk collection just in case a virus slips in.

Always keep your disks write-protected so that data can't be written to them if you don't want it to. For 5.25-inch disks this is done by placing a sticker over the 'notches' at the side of the disk, while with 3.5-inch disks this is done by sliding the tab in the corner of the disk so you can see a hole through it.

Keep back-ups of your most important disks, particularly those which contain valuable data files. That way, if your disks are infected by a virus then it won't be a complete disaster. If you do find that your computer has been infected by a virus, stop what you're doing, turn the computer off and virus check the disks you used up until you were aware of the infection.

3 *There is no real 'best' virus killer for the Amiga, but there are a number of good virus checking and killing programs that do different jobs. As far as an all-round program goes there are a couple of good ones.* BootX *(the latest version of which is 4.40) is capable of checking and killing both bootblock and link viruses.* Virus Checker *(latest version – 6.00) can also do this but runs in the background, enabling you to use other*



If you're new to the Amiga and want to do more than play games then the *Amiga Guide* is the essential companion

Back issues

If you want to get hold of a back issue of *Public Domain* to find out more about some of the subjects covered here turn to page 97 for details of how to order.

programs at the same time. Nuke *(latest version 1.5a which we had on our issue six cover disk) is also very good and does a similar kind of thing.*

4 *A virus* ***can't*** *harm the computer's hardware, but it can cause problems if you have a hard disk. If you boot a hard disk when you turn the machine on, and a virus has wiped the drive, then you'll have to boot from your standard Workbench disks.*

(For a more in-depth examination of the danger of viruses check out our feature in issue two.)

5. *There is a disk that explains how to use your Amiga. It's called* Amiga Guide *and, as it happens, it's reviewed on page 67 of this very issue...*

Amstrad emulation

Q I own an Amiga 500 Plus with 1Mb and an Amstrad CPC 464. The Amstrad, however, has recently decided to give up the ghost leaving me with an entire base of useless software. After issue three's extremely interesting insights into the world of PD emulators I would be extremely grateful if you could tell me if there is a reliable CPC emulator for the Amiga, or is the Amstrad's operating system too complex to imitate?

Thomas Christie, Grangemouth, Stirlingshire

A *It's not so much a matter of the Amstrad's operating system being too complex for the Amiga to emulate, but rather that no-one's bothered to convert it yet. Whether they will or not is another matter. Bearing in mind that the Amiga can do a pretty good impression of the Spectrum, it should be able to do the same with the Amstrad, which uses the same processor and is generally similar in terms of hardware to the Speccy.*

In the driver's seat

Q I own an Amiga 500 which has 1Mb of chip RAM. I recently purchased an Oki Microline 82A 9-pin dot matrix printer and am presently driving it with an Okidata 92 driver. While this enables me to print out basic text, it will not permit me to change font styles or print graphics.

I am sure it is a problem with the driver as the printer's manual specifies that graphic printing is possible. I have tried a few PD disks but without joy. Could you please tell me if there is an Oki Microline 82A driver available and where I can get it?

T Campbell, Rochester, Kent

A *Try looking at disk V270 from PD Soft, 1 Bryant Avenue, Southend-on-Sea, Essex SS1 2YD ☎ 0702 466933. It contains a number of common and not-so-common printer drivers, and is an update of the company's earlier disk, V119.*

Got the on-line bug?

Q I read your article on bulletin boards in *Public Domain* issue four and it came at an opportune time. Where may I obtain a copy of Tom Mack's *RBBS* for my PC? I looked through the ads in that issue and could find no reference to it.

Ian Longhorn, Hillingdon

A RBBS *version 17.2A can be obtained from The Public Domain and Shareware Library, Winscombe House, Beacon Road, Crowborough, Sussex TN6 1UL ☎ 0892 663298. The program comes on four disks, numbered 1788A, B, C and D.*

Module converting

Q Please could you tell me if there is a utility for the Amiga which will enable me to convert *MED/Octamed* modules to the *Soundtracker* format?

R Johnston, Castleford, West Yorkshire

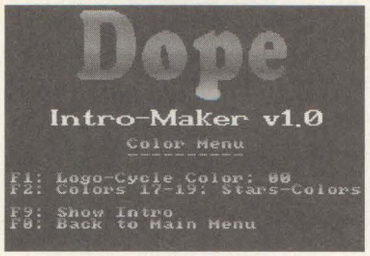
A AMFC *is a utility available from AmigaNuts that in its current version, 1.2, can convert different sound module types, but can't do what you're looking for at the moment.*

It can convert Startrekker, *SMUS and* Oktalyzer *modules to* Octamed, *and* Noisetracker *modules to* Music-X *format. Brian Thom, the author of the program, mentions that future versions of the program will be able to convert* Octamed *modules to* Startrekker, *SMUS and* Oktalyzer *format. Contact AmigaNuts at: 169 Dale Valley Road, Hollybrook, Southampton SO1 6QX.*

Demo creators

Q I would be grateful if you could tell me which are the best (in your opinion) demo creators available for the ST and Amiga. Do any of these programs enable you to incorporate sampled music and sound effects and if not, are there any that do?

Edward J Mew, Shrewsbury Shropshire



Dope Intro Maker: **we reckon it's the best of the bunch as far as Amiga PD demo makers go**

A *We did a round-up of these programs in issue five which found that the best demo creators, even though they are pretty basic, are the* Dope Intro Maker *for the Amiga and* Intro Concept *for the ST.* Dope Intro Maker *is available from Crazy Joe's (145 Effingham Street, Rotherham S65 1BL ☎ 0709 829286). The ST program can be obtained from The South West Software Library (PO Box 562, Wimborne, Dorset BH21 2YD).*

The Dope Intro Maker *enables you to load music modules created by* Soundtracker-*type utilities. These modules are almost always made up of sampled instruments and other digitised sounds, though some of the more advanced programs enable you to use analogue sounds that you can create within the programs themselves. The* Intro Concepts *demo maker, on the other hand, only offers you a choice of tunes that have been ripped out of commercial games.* PD

Open to the public ● Open to the public

Only one query managed to stump PDQ this month. But that's still one chance for a reader in the know to win themselves a tenner. If you reckon you have the solution to the following the problem, send it in to the usual PDQ address on the opposite page...

● Charting the charts

Is there a specialised database into which you can feed Top 40 chart positions (music or otherwise) every week and then be able to call up the name of a song and see its week-by-week performance charted on-screen?

I have an Amiga and an ST, but would also be interested in PC programs.

Paul Raven, Trowbridge

Public knowledge ● Public knowledge

This clever pair have both earned themselves a tenner for solving posers that have stumped PDQ in previous issues...

● Just the Filofax, ma'am

I am writing in answer to Ken Hamer's plea for a program that will print out Filofax-size pages.

The program you need is *Contacts*, a shareware database. I've been using *Contacts* for about two years, ever since it was given out on a free disk in a magazine.

It's an excellent program with lots of 'extras' – you don't know how handy they are until you use them. It's available from Wittich Computer Services, 34 Runford Court, Milton Keynes MK5 7BB ☎ 0908 677726.

I hope this is of use to you and no, I'm not on commission!

B L Cole, Heston, Middlesex

● Printing money

After reading the letter from JM Porter about the trouble he's having printing out the £ sign in your April issue, I feel that I may have the solution to his problem.

If he is trying to print out the £ sign by pressing the SHIFT and 3 keys, the American keymaps used by most PD packages will display the # symbol. The solution in that case will lie in pressing the Alt and L keys and, hey presto, the £ sign appears.

I am assuming that, like myself, the computer JM is using is an Amiga. I also use a Star printer and *Text Plus*. I use the standard emulation mode of the printer and have experienced no problems accessing the £ sign. *Text Plus* has its own driver which works perfectly with the Star.

I'd like to know if JM finds that this is the solution in his case.

Darren Howarth, Rotherham, S.Yorks

So, JM, if you do have any further problems with your printer, write to us here at* Public Domain *and we will forward your letter to Darren .

Get a full commercial package worth over £50 for just £1!

ST FORMAT
ISSUE 35 ■ JUNE 1992 ■ £3.95
BRITAIN'S BEST-SELLING MAGAZINE AND DISK FOR YOUR ST
Don't miss this month's complete step-by-step guide to installing memory upgrades and our definitive astrology feature and programs
360
reasons to buy this month's issue of ST FORMAT:
170 best buys listed in our unbeatable buyer's guide
86 tips and solutions to overcome your problems
40 Public Domain programs reviewed and rated
25 cheats to get through those torturous ST games
17 of the latest and greatest games reviewed
10 hardware and software items on test this month
and:
12 programs on our two Cover Disks – including the complete GFA Basic 3.5, the complete GFA Raytrace, a full assembly language programmer and a playable preview of Empire's Pacific Islands.
What more could you want?
NEXT ISSUE OUT THURSDAY 14 MAY

If you're interested in making your cash go a long way you're already reading the best magazine in the world, but there's one thing this magazine can't do for you – it can't *give you* complete ST packages.

From the publishers of *Public Domain* comes the magazine they're calling *ST FORMAT*, the only ST magazine to guarantee you a complete ST package that's worth more than £50.

Every month we put *two* Cover Disks on our issue – one containing a full commercial package and the other with a host of Public Domain utilities, reader programs, playable game demos and much more!

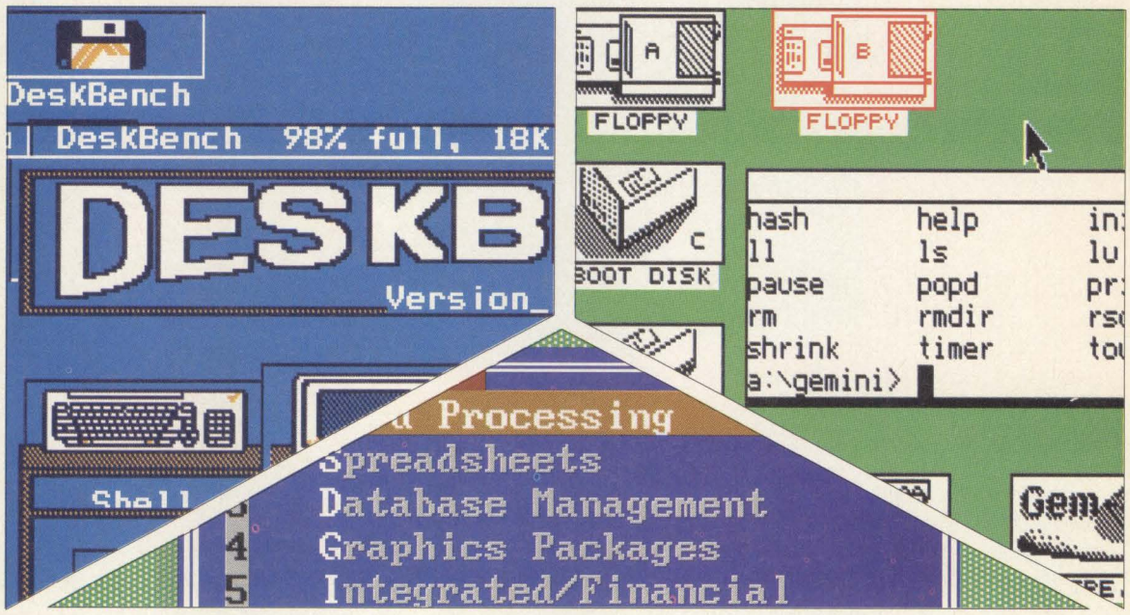
BUY *ST FORMAT*

It's the bargain of the century!

Don't miss the only ST magazine that really looks after your wallet!

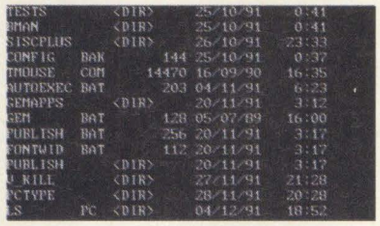
They're fast. They're convenient. They've made computers accessible to the MSc in Computer Sciences-less masses. Nial Grimes traces the rise and rise of the Graphic User Interface and shows how PD can relieve those command line blues...

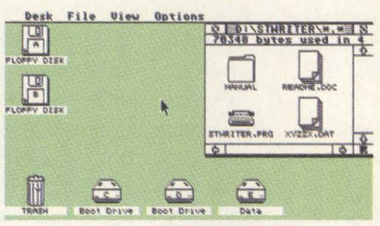
Window shopping



There was a time back in the 70s when the stereotypical view of computers was that you needed to type in a command line the complexity of a Tolstoy novel just to get the thing to work out two plus two. Now ten-year old kids who have made a career of bunking off school and can barely spell their names know how to get their computers up and running. This is all thanks to the rapid development of user interfaces.

Little did Apple know that the trend it started with the Macintosh in the mid 80s was to lead to the very basis of computing in the 90s. The concept was simple: complex commands were out, the Windows, Icons, Menus and Pointers (or WIMP) approach was here to stay.





Why put up with a dull old load of commands when you can have a tidy, simple-to-use front end?

The front man

At the heart of every good operating system lies the front end. It's the point where user meets the hardware and hopefully comes to a compromise of mechanical hostility and human thinking. All of the 'house-keeping' chores – formatting disks, copying and actually running programs – are carried out from here. The front end can be just a series of command lines, as with DOS on the PC, but it can also be given over to a graphic user interface environment.

The GUI has changed the way people think about performing even these simple tasks. No longer does deleting or running a file involve remembering a complicated command sequence – pure common sense is enough. Just double click on a file to run it or drag it to the dustbin to delete it!

Familiar words? And so they should be: ST and Amiga's come with GUIs as standard (GEM and Workbench respectively) and Windows is becoming ever more popular on the PC.

All these environments have good points but each has also its failings. Indeed, Commodore and Atari are the first to admit this by including improved interfaces with their latest and top-end machines. What's obviously needed is a front end that takes the very best aspects of all others and combines them into a usable program. Thanks to the public domain, such programs exist and what's more the best are available for next to nothing.

Public enquiry

There are hundreds of packages available, all with different strengths and many surpassing their commercial counterparts in terms of features and friendliness. Exactly which choice you make depends on your needs.

Ever popular for the PC is the menuing system, which enables programs to be given 'slots' in a panel and launched from a single keystroke or mouse click. This idea has been brought into the 90s by the likes

cont. on p74

Interfacing facts: different ways of telling your computer what to do

Command line interface – This is the most basic way of controlling your computer. You type in all the commands manually using the keyboard to achieve all file and disk-related functions. Requires thorough knowledge of syntax and the commands

Front end – The screen that confronts you when you first switch on the machine (unless you've booted with an autoloading program, of course). It's the place where you perform file operations and from which you can run programs. It can be a simple command line, such as with DOS on the PC, or a complex graphical environment, such as the ST's GEM desktop

GUI – Graphic User Interface. These avoid the command line altogether, with all the commands that would previously have to be typed in on the keyboard instead being 'entered' using graphical elements such as icons and pull-down menus

Menu-driven environment – Menus fall in-between the command line and a normal GUI. Some keyboard input is still required, either to run programs from a menu or to type in the commands through a shell, or a mouse can be used to point and click on files and commands in the usual way

Desktop replacement - This is the generic term given to programs, including GUIs and menu-driven programs, that are designed to make using the computer easier, either working around the current operating system and making it easier to use, or changing the operating system altogether

Your guided tour around Windowsbench 2.0

The redesigned *Windowsbench* device icons control your Amiga's floppy and hard disk storage

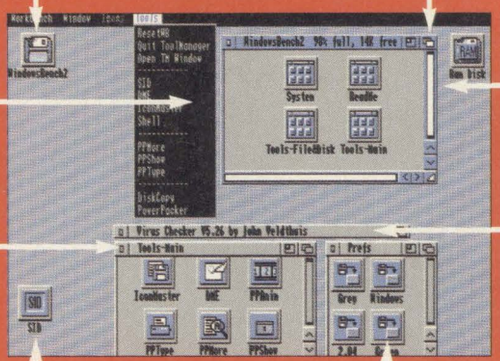
The depth gadget moves a window to the foreground or background depending on the windows original position

The tools are the guts of the *Windowsbench* system. From this menu, you can jump to the in-built copying, formatting and design utilities

Use the scroll bars to reveal what else is hidden on the disk

Strangle the virus threat before it ever gets a hold on your system with the built-in virus guardian. Each disk inserted is checked and you are warned of infection

The close gadget removes a Workbench window from the desktop



Program icons can be dragged onto the bench itself for easy access. Simply double click on the file to run it as usual

A swift click of the *Windowsbench* preferences will launch you into one of four distinctive (to say the least!) colour schemes

give your computer a whole new lease of life. They add features, increase productivity and, above all, are easier to use. Get used to a replacement and you are unlikely to want to move back to the sometimes infuriating norm!

Even PC owners can rest easy, safe in the knowledge that their aged DOS command line has finally been laid to rest. After all, why bother with the complicated approach when a disk full of public domain or shareware can let you do exactly the same thing without you having to memorise any of that infuriatingly complex syntactical nonsense?

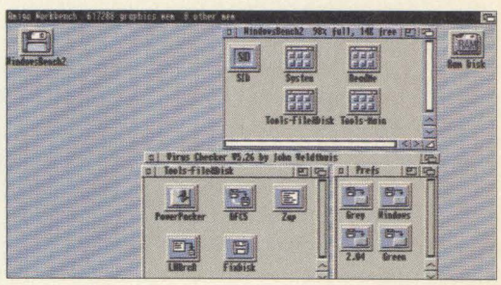
As more and more people are being forced to come into contact with computers, there is still room for even simpler interfaces. So knows what the future will hold? A 3D virtual reality desktop? A holographic Workbench? Only time will tell.

Amiga GUIs

The Amiga's Workbench is a workable but sometimes frustrating GUI, lacking in speed on a standard machine and also missing some useful tools compared to the GUIs on other machines. The replacements available in the public domain build on Commodore's interface, adding these tools and generally making it look much better.

Windowsbench 2.0

Windowsbench 2.0 by Mikesoft? Slightly more than a bizarre coincidence, don't you think? And quite rightly so; this program was designed to look as



Looks a bit like Windows? That's because it's supposed to. But the similarities in Windowsbench are purely cosmetic

cont. from p73

of *PowerMenu* and it's not uncommon to find complete DOS shells built in. Certainly in the case of *MenuDirect* the shell is so good you won't find yourself needing to drop back into ultra-unfriendly DOS. And, as a bonus, that mouse lying dormant on your desk suddenly springs to life!

The ST is well catered for by complete replacement front ends. Systems such as *Gemini* and *KAOSDesk* show what can be achieved with GEM

> *"PD replacement interfaces can give your computer a whole new lease of life."*

and banish forever those boring, weedy desktop icons that come as standard. The ST becomes a whole new machine when united with a decent desktop: programs can quite simply be dropped on to the desk itself (a hard disk owner's nirvana!), dialogue boxes miraculously become easy to use, disk copying ceases to be a lifetime commitment and interesting fonts are no longer out of bounds.

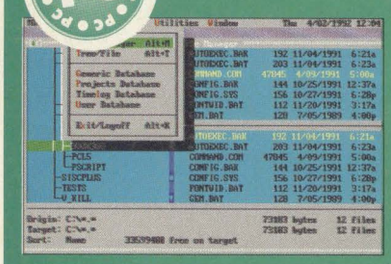
Similarly the Amiga's Workbench sheds many of its irritating habits when combined with a good replacement. Copying files without icons or creating a folder no longer means dropping into the Shell; replacements such as *Windowsbench* offer much simpler alternatives! And icons need not be the problem they used to be; with the help of *Deskbench*, all your disks can look like an MFI display!

Or maybe just one part of your interface gives you the gripes? Utilities are always a public domain speciality and almost any aspect can be tweaked to suit your needs – a 'launch pad' of favourite programs, virtual large screens, icon designers, turbo chargers – the list is endless and for once is not limited by your bank balance!

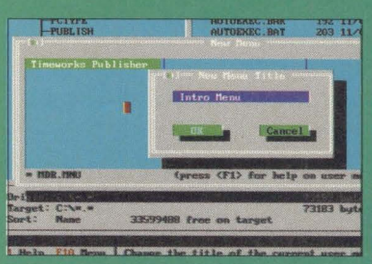
Make that change

Far from just improving cosmetics, public domain replacement interfaces serve a real purpose and can

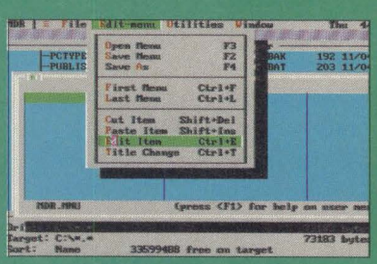
Straight to the point: first steps with MenuDirect ● Straight to the poin



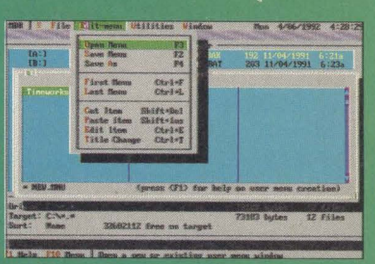
1 Installation is the first step on the road to an easy life and will eventually land you at this screen – the main work area. The DOS shell initially obscures the menu, but don't worry – you don't have to type in any commands. It can be sent swiftly to the back by selecting Menu from the View panel



2 New Menu is hardly an inspiring title for the nerve centre of your PC, but that's easily changed to something a little more interesting with the help of the Change Title option (OK, so I admit it, Intro Menu isn't that exciting either, but it's best to keep things basic at this stage!)



3 Should a single menu be enough to cover all of the programs on your hard disk (you'll be lucky) then it's simply a case of choosing a position and Adding an entry. When the large dialogue box appears enter the name of the program you want to add, the command for its execution and the file path



4 More likely you will want to break down your programs into various categories: word processing, desktop publishing, graphics, decidedly dodgy slide-shows and so on. This involves setting up sub-menus for each category which, fortunately, is child's play using *Menudirect*

Iconmania

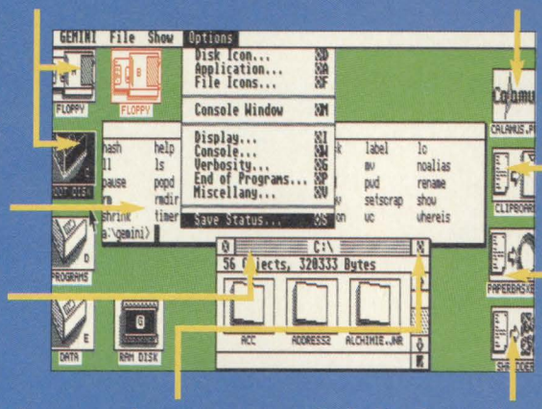
Icons are the basis of graphic user interfaces on the ST and the Amiga. Not only can a well-drawn icon look good, but it can also reduce the amount of time you spend looking through otherwise identical files.

The Amiga scores well in this department thanks to in-built support for icons of any size. But you can forget the standard Commodore editor because the public domain has far better ones to offer.

Iconmaster is a good start for designing icons from scratch and can be found as a supplementary program with *Windowsbench*. Another elegant solution is to convert a standard IFF image using the *Iconvert* utility. The latter effectively turns the paint package of your choice into an icon editor in its own right!

The ST story is not quite as straightforward, but with a little bit of perseverance even the seemingly impossible *Gemini* can be persuaded to use custom icons. Of course, the easiest option is just to go for *KAOSDesk* which has its own icon editor, but suckers for punishment need to get hold of a 'resource editor' (such as the public domain *MKRSC*) which will quite happily import the icons of your dreams.

So what do all those icons on Gemini's desktop mean?


Disk icons control the ST's floppy and hard disk storage. Double click here to take a look at the contents.
An application icon can be dragged from a window and dropped on the Desktop from where the file can be copied, run or deleted
Mupfel – Gemini's built-in command line – summoned by the Console Window option. For a quick overview of the command set simply type HELP
Files dragged to the clipboard are stored until you quit Gemini
The move bar controls the position of the GEM window. Click and hold to reposition
The Paperbasket is a digital limbo. Files dragged here can be recovered before a reset
The full box enlarges a window to occupy the entire screen. A second click returns it to its original size
The Shredder: the point of no return. Drag a file or icon here and you can kiss it goodbye forever!

much like the Microsoft product as possible while remaining true to the Commodore WIMP environment.

Rather than being a complete replacement front end *Windowsbench* uses the standard Workbench, but adds tools of its own to compensate for the inherent deficiencies. Particularly pleasing is the fact that these utilities are available from the Tools menu on the Workbench itself.

The utilities provided include the excellent *SID*, *DME Edit*, *Text Editor*, *DFC5 Disk Copier*, *Iconmaster* and a virus guardian. One forseeable problem might be registering all these programs, which would come to erm, let's see – lots and lots!

The colour scheme and icons have been tweaked to look as Windows-like as possible but are really the only effort the program makes to emulate Microsoft's famous PC GUI. The windows are, however, very well designed and are at least a big improvement over the Commodore alternatives. If you're not keen on the grey background the program boots up with (again inspired by Microsoft Windows) you can always change the colour using the preferences menu.

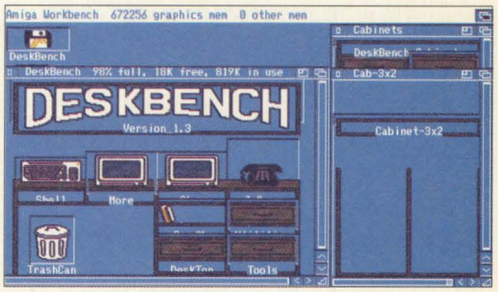
Two versions of *Windowsbench* are available, one for Kickstart version 1.3, another for 2.04. Workbench 2 has the advantage of looking very much like Windows anyway, reducing the novelty factor somewhat. Whatever machine you own, you can expect to lose about 500K of RAM, effectively reducing your memory by half on a 1Mb Amiga.

Windowsbench is pretty, functional and a nice toy (which is more than some commercial packages can claim!), but remains essentially a string of utilities tagged together in a rather novel way.

AMIGA **70%**

Deskbench

Do you ever get the feeling that your Workbench looks a little bit boring? Sure, the icons look great in technicolour when they're drawn well, but that's just the point! We can't all design mini Mona Lisa's and this is the problem *Deskbench* attempts to tackle.



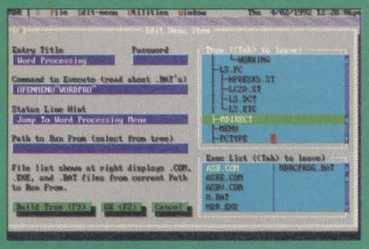
Enter the exciting world of office furniture courtesy of Deskbench. Will your Workbench ever be the same again? Quite possibly...

Basically you get three disks full of icons: the

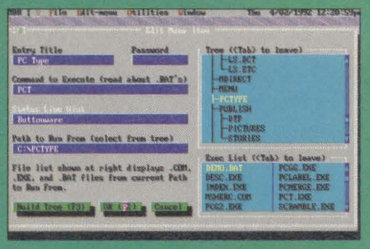
cont. on p76

first steps with MenuDirect ● Straight to the point: first steps with MenuDirect

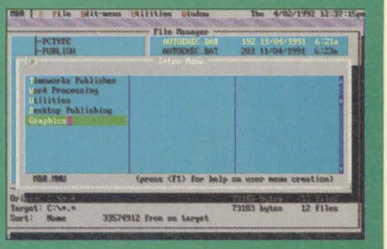
5 Start by opening a new menu for every category, calling each something you can recall easily (such as WORDPRO for word processing files, DTP for, erm, DTP files, and so on), not forgetting to save each before opening the next (*MenuDirect* will prompt you, should it slip your mind)



6 Move back to the default menu (called MDR.MNU), select a position and choose Add Entry. This time round you don't want to run a program but move to another menu called WORDPRO. Use the command OPENMENU"WORDPRO" to force *Direct* to jump to the new Word Processing menu

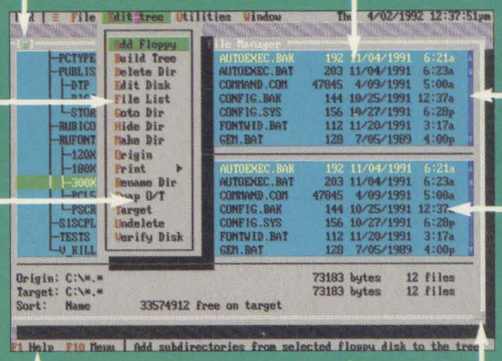


7 Repeat step five, adding all of your categories to the main menu and round off by titling them. You are now ready to begin filling entries with all the goodies on your hard disk as per step three. OK, so it sounds just a tad tedious now, but think of all the effort it's going to save you in the future...



8 The finished article! PC á la carte, courtesy of *Public Domain* (oh, and *MenuDirect* helped out a bit, of course!) Don't forget, if you do get a bit lost during the process the context-sensitive help system is only a prod of the F1 key away at any time and covers most, if not all, of the queries you are likely to have

MenuDirect – your GUIde to a replacement front end


Finished with a window? Want to get rid of it? Just click on this close box and wave it goodbye
A window can be moved around the screen by pressing and holding the mouse button on the 'title bar' or alternatively by using the cursor keys
Drop down menus are activated by a clicking first on the top line of the display then on the required option
Use the scroll bar and arrows to move up and down the file list
Basic DOS functions are all accessed from the Extras menu. More advanced options are available under the MDR heading
The file tree is your main work area. All DOS functions that you carry out will affect any files that are highlighted in this display
The help system can give assistance at any time. Simply select an option and press F1 to find out what it does
Click and hold the mouse button on the size gadget to enlarge or reduce the size of a window. Useful to prevent clutter

cont. from p75

first is a replacement for your Workbench disk, containing preferences, a shell and some handy utilities including *XIcon* to enable you to link scripts to the many icons provided. The other two disks simply contain the component parts and serve to illustrate how to design disks similar to the first.

The actual icons range from the sublime to the ridiculous, but all have one thing in common: they are all based on – wait for it – office furniture! The basic idea is that you use one of several patterns and add icons to form the drawers, desktop accessories and so on. Patterns are provided for filing cabinets, desks, credenzas (whatever they are – they're not in my dictionary for certain), shelves and so on. A good range of suitably well-drawn accessory icons are also included and enable you to 'Deskize' most of your favourite disks.

There's obviously been a huge amount of effort put into the production of *Deskbench*, but when you get down to it the changes are purely cosmetic – you are not going to reap any feature or even speed benefits (quite the opposite in fact!) If you're a programmer that lacks any artistic talent whatsoever or just a fanatically tidy person then give Deskbench a look by all means, but don't expect miracles.

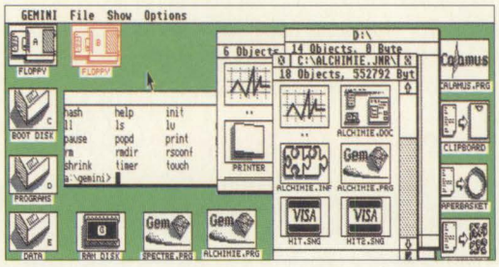
AMIGA 60%

ST GUIs

Atari's use of the GEM desktop on the ST has proved to be a functional environment but one that is lacking in certain areas. To improve the situation, the PD replacement GUIs reviewed here borrow ideas from the Amiga and the PC, adding such features as a command line to the standard GEM desktop to give the impression that you have more control over the machine. The standard icon-driven environment has also been customised to make it more attractive.

Gemini Version 1.2

Question: What do you get if you cross an Amiga, a Macintosh, a PC and an ST? Answer: *Gemini*! Déjà vu is the order of the day: boot up and you are presented with a thoroughly Macesque 'Welcome to *Gemini*' dialogue, use the desktop in the usual ST manner or open up a 'console' window for a little hint of Amiga and PC. *Gemini* tries hard to take the best from all worlds to provide the ultimate front end and, surprisingly, it works!



With icons galore and a good few extra features, *Gemini* is the state of the art in ST desktop replacements

The system is composed of two separate parts: *Mupfel*, the command line interpreter (which pops up in a window headed 'console'); and *Venus*, the graphical front end. Collectively they are known as (you guessed it, astrology freaks) *Gemini*.

Venus retains most of the features of its Atari counterpart, but adds plenty more besides. For a start the icons actually look something like the devices they represent! Although an icon editor is not included, the ones provided are so well-drawn you probably won't want to customise them.

As handy as GUI's are, some people still prefer the plain, honest hostility offered by a command line. *Mupfel* is *Gemini*'s built-in answer to their prayers and offers just about everything any self-respecting masochist could ask for. Unfortunately it doesn't stick to a standard syntax, but uses a hybrid of PC, Amiga and its own commands. Particularly annoying is the list directory command which is known as LS as opposed to the usual DIR.

As with most software, there are a few quibbles: copying, for example, requires two disk swaps for each file which, if you have a single drive, can rapidly take you to the edge of insanity. But on the whole *Gemini* is stable, reliable and a godsend for desktoppers everywhere.

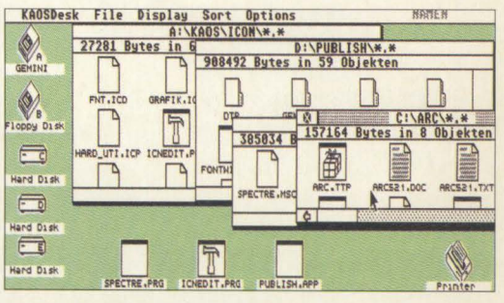
ST 90%

KAOSDesk

KAOSDesk marks yet another entry into the 'let's see how many features we can borrow from other operating systems' stakes. In common with *Gemini* it has mid-European origins but fortunately the version I saw was fully translated.

KAOS is fairly intuitive and shouldn't present too many problems for even the most inexperienced user. Some of the more tasty features include Size To Fit, to avoid having to scroll windows from side to side and Function Key Launch which means you can assign all your favourite programs to a single key. In addition, the GEM format and copy routines have been beefed up to take care of large capacity disks.

In an unusual fit of originality, *KAOS* actually makes use of a disk's title; just double click on a drive icon and the label below it automatically changes to the name of the disk – now why didn't



***KAOSDesk*: a great all-round replacement front end if you can excuse the designer *Play School*-type icons**

A brief history of GUIs, or... who copied who?

The history of the graphic user interface has been a turbulent one, plagued by corporate lawsuits which continue to this very day.

Much of the development was carried out by Xerox as instinct research in the late 70s and early 80s. Amongst those studied were children (the basic idea presumably being that if children could use it, maybe the American public would stand a chance!)

Eventually Xerox dropped the project as a waste of money. It was just a couple of months later that business tycoons Jobs and Wozniak at Apple released the Macintosh, the very first commercial computer to feature a graphics-based user interface and still legendary for its ease of use.

The inevitable occurred and numerous clones of the imaginatively titled, and incredibly popular, Apple 'System' followed. From Digital Research/Atari's GEM desktop to Microsoft's Windows, most of these 'imitators' have been viciously attacked by Apple (which was itself being sued by Xerox!)

The result of this unhappy situation has fortunately been little more than red faces (and bank balances!) all round, and the GUIs found on the ST, Amiga and PC remain virtually intact.

Pointers to the GUI

Most GUIs benefit from a mouse. True, you can navigate a GUI with nothing more than a keyboard but it would be a bit like using a word processor with a joystick! A mouse is by far the most popular, but by no means the only method of using a GUI. There are literally dozens of pointing devices ranging from the practical to the pointless. Here are some of the more practical:

- MOUSE – The world standard in pointers and the cheapest solution. It consists of a casing containing a heavy ball. The user pushes the mouse around on a surface and the movement of the ball is monitored by three rollers
- TRACKER BALL – Literally an inverted mouse. The user, rather than moving the unit itself, moves the ball. Inventive eh? The tracker ball is particularly handy where desk space is at a premium
- GRAPHICS TABLET – The artist's choice. It consists of a pen and a solid 'tablet' on which the artist draws his masterpiece with a special pen
- MOUSE PEN – The mouse pen is an attempt at a cheaper form of graphics tablet – quite simply a mouse in a pen shape
- JOY-MOUSE – Using your portable on the train is fine – that is until you find you'd rather not push it through the sodden mess of fag ends and coffee ground into the table. The joy-mouse is a proportionally sensitive joystick – ie, it recognises how far you have moved the stick – and is a reasonably competent mouse compromise

Atari think of that? The usually redundant lower scroll bar on the windows is also put to good use as a gauge of how much disk space has been used.

Possibly the best feature of *KAOS* is its icon system which enables individual icons to be tagged to a file. Unfortunately the icons provided are not a patch on the competition and range from the bland to the totally boring. Luckily an icon editor is provided with the program, so you can always have a go at designing some better ones.

In a way, *KAOS* is more of a direct replacement than *Gemini*. It occupies under 100K of RAM and therefore can be expected to run well on a half megabyte machine. It's refreshing to find some new ideas being used and we can only hope that somebody takes the initiative and puts together a decent set of icons to accompany what is undoubtedly a well-designed program.

ST 79%

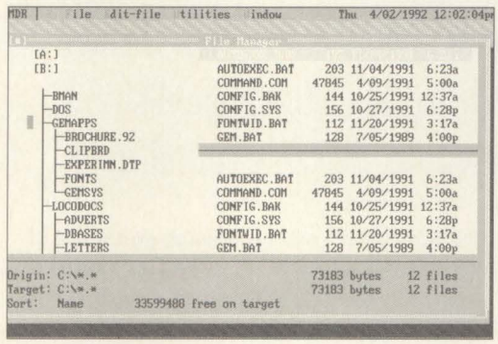
PC GUIs

Unlike the Amiga and ST, the PC doesn't come with a GUI as standard, and it doesn't get one from the public domain either. What PD can offer, though, are menuing programs that make the unfriendly MS-DOS command line a thing of the past, enabling you to load and perform file operations with the press of a key or the click of a mouse button.

MenuDirect Gold 3.00

Love it or hate it, DOS remains an incredibly popular and powerful interface. Die hard command line freaks are unlikely to want to give up their trusty C:\> prompt for a completely graphical interface, which is where *MenuDirect* comes in: all the features, half the hassle. Good intentions, at least!

Although a text mode is used throughout, a huge amount of effort has been put into making everything



The utterly wonderful *MenuDirect*. When it comes to DOS shells, if *MenuDirect* ain't got it, it ain't worth having

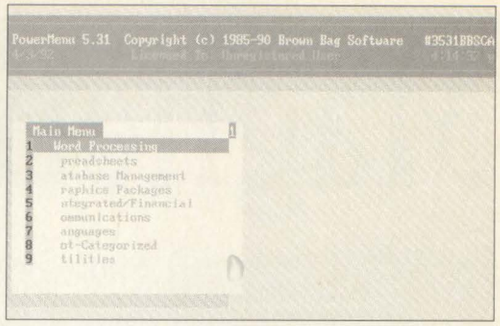
look as graphical as possible, complete with menus, windows and mouse control. You can opt for a completely keyboard approach if you really want to, but *Direct* has been designed for use with a mouse, and works far better this way.

Once again, installation is automatic and can also be relied on to make the required changes to your AUTOEXEC.BAT file should you want *MenuDirect* to run each time you boot. Even if you do come to grief, the 130K plus of documentation supplied on disk is sure to help out somewhere along the line.

Both the menuing system and the DOS shell are exceptional, catering for each and every DOS command either by choosing a menu option or by typing a command into a dialogue box. Password protection is fully integrated to enable limited access to applications, plus a there is a user log detailing who has used which applications and for how long – just let 'em try playing games in business hours!

MenuDirect was nominated for a best product award at the Comdex computer show in the States last year and when you start to explore the program you can begin to see why. The sheer range of features and power of the system makes it ideal for virtually any task. Highly recommended.

PC 90%



***PowerMenu*: powerful hard disk management at the touch of button, but you have to set up the menus yourself**

PowerMenu 5.0

Do you ever get the feeling that the hundreds of commands DOS offers is just overkill when all you want to do is run your favourite word processor? In that case *PowerMenu* could be what you're looking for.

If setting up a menu sounds like a bit of a chore, why not let *PowerMenu* carry out all of the hard work for you? Auto-configuring forces *PowerMenu* to search through your hard disk and install any packages it finds into a categorised menu. Of course, this isn't always 100 per cent successful owing to the sheer number of packages available for the PC, but it's a good start.

Actually setting up your own menu from scratch isn't as complicated as it may seem at first. In fact, it's as easy as entering the command as you normally would, with the added advantage that you won't ever have to type it again – a single keystroke will suffice next time!

Secondary to *Power*'s menuing capabilities is a good DOS shell. In tune with the rest of the program it's easy to use and doesn't blind the user with millions of options they may never use. The problem of this approach could obviously be that a command you find invaluable may be missing.

PowerMenu is a solid, reliable DOS replacement, simplicity being its main strength. Others may have more features, but are, as a result, more complicated to use. Make up your own mind.

PC 85%

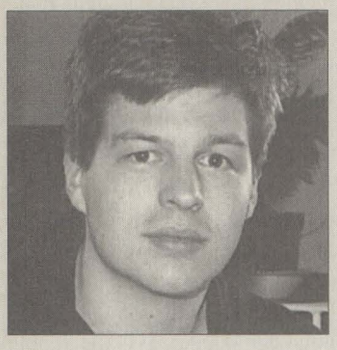
In conclusion

Graphic User Interfaces enable computer users to perform disk management functions, such as disk copying or moving files, without having to type in complex commands. Often it's a case of just highlighting an option and hitting a button. PD GUIs come into their own when replacing DOS on the PC but some great alternatives to Workbench and GEM are also available.

In Brief

- DISKBENCH – Amiga • PD • 512K • Disk PU41/PU42/PU43 • NBS, 1 Chain Lane, Newport, Isle of Wight PO30 5QA ☎ 0983 529594
- GEMINI VERSION 1.2 – ST • Shareware • 50DM (£17) • Requirements • 512K • Disk UTL 400/401 • Floppyshop ST, PO Box 273, Aberdeen AB9 8SJ ☎ 0224 312756
- KAOSDESK – ST • PD • 512K • UTL 378 • Floppyshop ST, PO Box 273, Aberdeen AB9 8SJ ☎ 0224 312756
- MENUDIRECT GOLD 3.00 – PC • Shareware • $39.95 (£23) • 384K • Hard Disk Required • UPC172 (two disks) • Softville, Unit 5, Stratfield Park, Elettra Avenue, Hants PO7 7XN ☎ 0705 266509
- POWERMENU VERSION 5 – PC • Shareware • £59 • 256K • UPC125 • Softville, Unit 5, Stratfield Park, Elettra Avenue, Hants PO7 7XN
- WINDOWSBENCH 2.0 – Amiga • PD • 1Mb • Plus only • Disk number U690/U691 • NBS, 1 Chain Lane, Newport, Isle of Wight PO30 5QA ☎ 0983 529594

Magnetic media



Stuck for a read between issues of *Public Domain*? Why not give diskzines a try? From the serious to the irreverent, there's a zine to suit your tastes and machine. Nial Grimes delves into the world of digital publishing in the first of a regular diskzine round-up...

Gone are the days when you needed a massive mortgage before you even thought about setting up a magazine. Diskzines are today's low-cost computer culture. Whether you're just in search of an entertaining read or after some tips on making the most of your computer this month's selection of zines has something to offer you.

For the ST

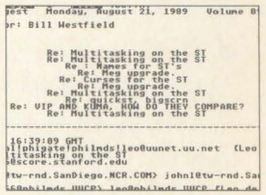
● Dave Mooney's excellent *STEN* goes from strength to strength and still contains some of the best disk-based information for the ST. This month's issue contains several excellent features, including reviews of *FastCopy Professional*, *Prodata*, *Write On* and *The Chameleon*, plus a rather unusual article covering ST on the PC! Apparently 386 PC owners will soon be able to run ST software at half the speed of a real ST – so much for technological advances! The Trekkie humour page, called *The Next (De)Generation – Where No Sane Man Would Go*, is also sure to raise a smile.

Fast and friendly, *STEN* is a mine of information with more than a few laughs thrown in for good measure

● On a lighter note, *Ledgers* from The Untouchables is pure entertainment. If demos or games are an important part of your computing life, look no further. Volume three is the latest and includes not only reviews, but tutorials on how to achieve some of the flashy effects you see in demos: rasters, reset demos, border tricks – they're all here. *Ledgers* also carries a regular interview column, though, to be honest, most of the interviewees seem to be members of The Untouchables! Good though *Ledgers* is, something definitely needs to be done to speed up the display program.

If you want something done properly, do it yourself; that's obviously the opinion of *Ledger*'s production team The Untouchables – they're great at interviewing themselves!

● Fresh from the Stateside Atari bulletin board comes *Atari Digest*, a cocktail of questions and answers in ASCII format. *Digest* seems to have a very big following in the States and almost all the questions posed are answered fully, sometimes by Atari itself. Floppyshop's disk DMG45 contains a couple of weeks' worth of text, mainly covering the possibility and practicality of a multi-tasking ST together with a generous sprinkling of general comments. It's all interesting stuff and an ideal way to learn about your ST.


Monday, August 21, 1989 Volume 8
Bill Westfield
Re: Multitasking on the ST
Re: Multitasking on the ST
Re: Mag upgrade.
Re: Coprocessor for the ST
Re: Mag upgrade.
Re: Multitasking on the ST
Re: QuickST: BIOSCFG
Re: VIP and KIMA. How do they compare?
Re: Multitasking on the ST
16:39:09 GMT
Re: Multitasking on the ST

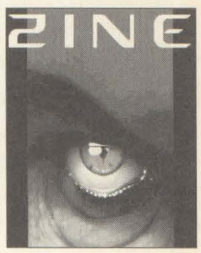
***Atari Digest*: Stateside news on tap. Have a nice read, y'all**

For the Amiga

● Despite the incredibly unoriginal title, *Zine* is an example of electronic publishing at its best. As if the amazing graphics weren't enough, each issue is accompanied by a stonking soundtrack. The magazine itself is written by demo programmers for all computer users.

Articles on such diverse subjects as drugs and the occult are included alongside the usual editorial and general news. Being European in origin, the language can get a little strong at times.

Some of the articles are fascinating, others boring, but



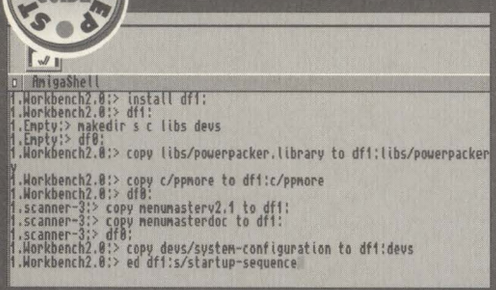
If you think the graphics are good, you ought to hear *Zine*'s soundtrack!

MenuMaster 2.1

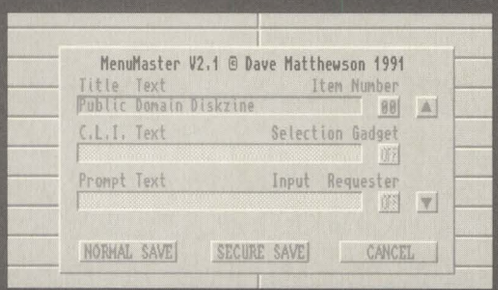
Got something to offer the diskzine world? Why not try producing your own? – creating a zine using *MenuMaster* is as easy as 1-2-3 (erm, 4-5-6)...

You might think that compiling your own diskzine takes a degree in computer programming. It might well have done if not for the public domain. *MenuMaster* is a flexible PD utility which takes the pain out of producing flashy menus, for whatever purpose. The menus it produces are like contents pages with an added advantage. When a reader decides what they want to read (or use if there are programs available on the disk) they just click on a button next to their choice to be taken to it.

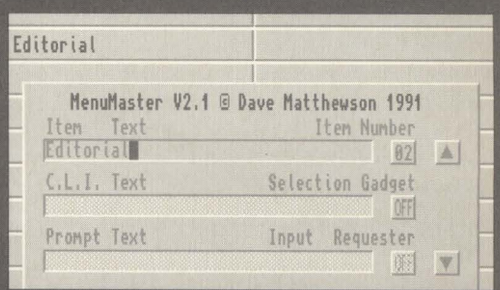
Producing diskzines with *MenuMaster* could not be easier. It includes its very own editor, so you don't even



1 **First copy *MenuMaster* to a disk containing *PPMore*, the RUN command and a system-configuration file. Now using a text editor insert the word string `MenuMasterV2.1` right at the very beginning of the startup-sequence file in the S directory**



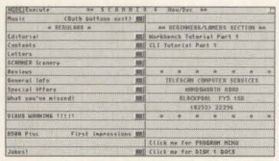
2 **Reboot from the disk and when the main screen appears select Edit from the Options menu. Enter the title of your diskzine into the top of the requester (in this case *Public Domain Diskzine*), click on Normal Save and your new heading should appear**



3 **Once again choose Edit and use the down arrow to move to position three. Now enter your first subheading, in this case Editorial. All the articles should already have been written using a text editor; *MenuMaster* enables you to collate them into a diskzine**

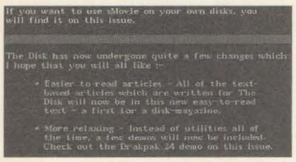
as each issue contains in the region of 150, you've got plenty from which to choose!

● A familiar name to all Amiga 'zinies' will be *Scanner*, produced by the lads at TeleScan Computer Services in Blackpool. *Scanner* manages to combine the lighter and more serious aspects of the Amiga and mixes the ingredients to come up with a very tasty result. In common with every issue, the latest, number four, is packed with programs and articles. The (not so) new A500 Plus is put through its paces and there are two tutorials covering Workbench and the CLI – ideal for beginners. Add this to some of the corniest jokes you're likely to get this side of *Little and Large* and you have a really excellent zine. *Scanner* has something to offer everyone and is an ideal introduction to diskzines.



Like the look of *Scanner*? Your very own diskzine can look just as good with the help of the *MenuMaster* walk-through – check it out!

● Also worth a mention is *The Disk* (yet another original title!) by Steven Lord. Of particular note is the Shell, which uses the PD utility *sMovie* to display the text (which, for once, is in a readable size). *The Disk* is a little short on editorial content at times, being limited to a few tips here and a couple of reviews there, but the program content is always top notch.



***The Disk*'s large text display program is good news for television owners**

For the PC

● Ask any PC owner their opinion of diskzines and the best you're likely to get in reply is a blank stare. The fact is, there just aren't too many good PC zines around. At long last, though, it looks as if that's all about to change as we welcome (fanfare) *Shareware Domain* on to the market.

The first things you notice about *Shareware Domain* are the stunning effects, which are some of the best you're likely to see on a PC. In fact, the whole zine is similar to a rolling demo – huge, bright titles scroll smoothly across the display, screens shrink to reveal a loading page and full colour is used throughout (graphics card permitting).

So much for looks, the editorial is the important thing. Fortunately in this case the writing matches up to the production. The pilot edition contains articles covering such topics as virus detection and batch files, a sprinkling of comedy plus a generous helping of reviews. A novel idea – for diskzines at least – is the Gallery which lets you, the reader, have your say: just put fingers to keyboard and send in the results for publication. The editorial standard is extremely high and there's not a drab display in sight. In terms of 'layout' – the arrangement of the text on the pages – the articles are about as close as you could come to a desktop-published page on a PC text screen.

***Shareware Domain*: will your PC ever be the same again?**

Shareware Domain is a tonic and without a doubt signals the way forward for PC diskzines. It takes the best elements from ST and Amiga zines without sacrificing the down-to-earth angle PC owners seem to love. Give it a try. You won't regret it.

Do you publish a diskzine? Dare you submit it to Magnetic Media for review? If the answer is yes, send a copy to Magnetic Media, Public Domain, *30 Monmouth Street, Bath, Avon BA1 2BW.* PD

Know your sources

You've read about them, so now you want to actually read them. A trip to your local post box is all that's needed to get hold of the very latest news and gossip in disk-based form (to be taken twice weekly in conjunction with a course of *Public Domain*). This month's zines are available from the following sources:

- **ATARI DIGEST – ST • Colour/Mono • 512K • £2.50 • Floppyshop, PO Box 273, Aberdeen AB9 8SJ**
- **THE DISK – Amiga (Not Plus compatible) • 512K • £2.50 • Steven Lord, 6 Stubbing Brink, Hebden Bridge, West Yorkshire HX7 6LR**
- **THE LEDGERS – ST • Colour • 512K • £2.95 Floppyshop, PO Box 273, Aberdeen AB9 8SJ**
- **SCANNER – Amiga • 512K • £3.00 Telescan Computer Services, 1A Grantham Road, Handsworth Road, Blackpool**
- **SHAREWARE DOMAIN – PC • 512K • £3.00 • Softville, Unit 5, Stratfield Park, Elettra Avenue, Waterlooville, Hants PO7 7XN**
- **STEN #8 – ST • Colour/Mono • 512K • Free with disk and SAE. Dave Mooney, 4 School Road, Morningside, Newmains, Lanarkshire, Scotland**
- **ZINE – Amiga • 512K • 5DM (approx £1.80) Brainstorm/Zine, PO Box 2, 4148 Pfeffingen, Switzerland**

And if you fancy having a go at producing your own diskzine the program you need is:

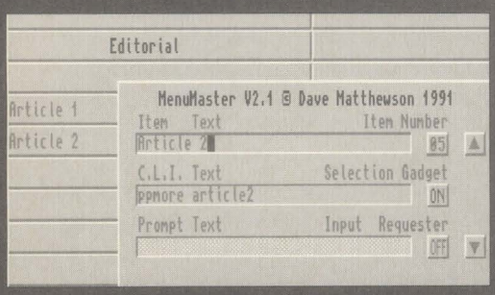
- **MENUMASTER VERSION 2.1 – Amiga • 512K • Disk: Scanner #3 • Telescan Computer Services, 1A Grantham Road, Handsworth Road, Blackpool**

need a text editor to get started. It also has the benefit of letting you test the zine interactively as you go along.

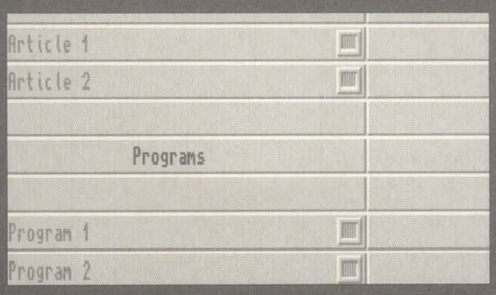
Excellent though *MenuMaster* is at linking text display utilities, its usefulness doesn't end there. Anything that can be run from the CLI (Command Line Interface) can be given a button in *MenuMaster*. What this means is that you can execute a procedure – such as copying a disk, displaying a picture or importing a text file – with a simple mouse-click rather than having to type in a complex command.

Short and sweet, *MenuMaster* does exactly what it was designed to do. It's flexible, fast and used by more than a few existing diskzines and many public domain libraries use it for their disk catalogues. One thing's for sure: you won't find an easier way to enter the world of Amiga electronic publishing.

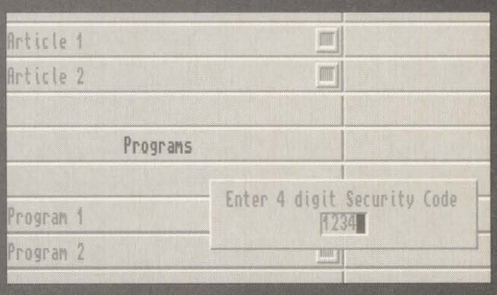
AMIGA 89%



4 Now enter the command that will display an article if the reader selects it. Enter the title of the article to be displayed, switch the CLI toggle ON and type the command required – in this case `ppmore article 2` – to tell *MenuMaster* where to look for it



5 Your zine is more than likely going to have some freebie programs included; these can also be run directly from *MenuMaster*. Just enter the name of the program to appear on the main menu page and the πCLI command needed to make it run if the reader selects it



6 Carry on these procedures until you have filled up the disk. Finally protect your menu from prying eyes by saving using the Secure option. Each time you choose Edit in future, *MenuMaster* will request this four digit code. Who needs assembler?

Questionnaire

It's that time again, when we ask you for your opinion of the magazine. We'd like to know exactly what you think about *Public Domain*, how you think it can be improved, plus a bit about yourself so that we can direct the content and the writing of the magazine to suit your tastes.

This questionnaire is more extensive than the others we usually print in the back of the magazine because we want to get a more detailed idea of what our readership is all about. Your views really *do* count.

So, please take a couple of minutes to fill it in, put it (or a photocopy) in an envelope and send it to us. We haven't included a space for your address – everything you write will be treated in the strictest confidence. What's more, it's a Freepost address and costs you nothing to send it to us.

If you'd like to add some additional comments about the magazine, then feel free to put them on a separate piece of paper.

Your Computer

1. Which computer(s) do you own?

Amiga:

a❑ 500 b❑ 500 Plus c❑ 1000
d❑ 1500 e❑ 2000 f❑ 3000

PC:

g❑ XT h❑ 286 i❑ 386 j❑ 486

With what display?

k❑ Mono l❑ CGA m❑ EGA n❑ VGA

ST:

o❑ ST p❑ STE q❑ Mega r❑ TT

2. How much memory does it have?

a❑ 512K b❑ 640K c❑ 1Mb
d❑ 2Mb e❑ 4Mb f❑ Other .....

3. Which of the following peripherals do you own or intend to buy within the next year?

Printer	a❑ Own	b❑ Intend to buy
Modem	b❑ Own	c❑ Intend to buy
Hard drive	d❑ Own	e❑ Intend to buy
Extra drive	f❑ Own	g❑ Intend to buy
Monitor	h❑ Own	i❑ Intend to buy
MIDI gear	j❑ Own	k❑ Intend to buy
Joystick	l❑ Own	m❑ Intend to buy
Mouse	n❑ Own	o❑ Intend to buy

4. How much do you estimate you'll spend on hardware in the next year?

a❑ £0-49 b❑ £50-99 c❑ £100-499 d❑ £500+

Software

5. How much, roughly, do you spend per month on obtaining PD & shareware?

a❑ Less than £5 c❑ £5-£10
d❑ £11-£20 e❑ £21-£30 f❑ £30+

6. How do you make your PD and shareware buying decisions?

a❑ Reviews b❑ Adverts c❑ Catalogues

7. Where do you obtain the majority of your PD and shareware software?

a❑ PD/shareware library b❑ Bulletin boards
c❑ Friends d❑ Magazine cover disks

Magazines

9. How many issues of *Public Domain* have you bought (including this one)?

a❑ One b❑ 2-4 c❑ 5-6 d❑ All seven

10. How many issues do you intend to buy in the next year?

a❑ 12 b❑ 7-11 c❑ 1-6 d❑ None

10. How do you rate the magazine in terms of value for money?

a❑ Excellent value b❑ Good value
c❑ Reasonable value d❑ Poor value

11. We've recently taken the decision to drop the cover disk. Would you prefer to see the magazine:

a❑ Without a cover disk at £1.95
b❑ With a tri-format cover disk at £2.95

How much did these sections of the magazine appeal to you?

Please give a rating out of 10

12. News /10
13. Arcade games feature /10
14. Letters /10
15. Comms column /10
16. Fractal feature /10
17. Public Eye /10
18. Problem Solved /10
19. GUI feature /10
20. Disk magazines column /10
21. Pornography feature /10
22. Programming & Utilities /10
23. Games /10
24. Demos /10
25. Home & Education /10
26. Business & Applications /10

27. What did you think of this issue overall? /10

28. How does it compare with previous issues you have seen?

a❑ Better b❑ About the same c❑ Worse

29. How many people, including yourself, have read this copy of *Public Domain*?

a❑ Just me a❑ 2-4 a❑ Five or more

30. How did you buy this copy of *Public Domain*?

a❑ I subscribe
b❑ Asked newsagent to reserve a copy
c❑ Had it delivered to my home
d❑ Just went in and bought it

Which other computer magazines do you buy?

Please give a rating out of 10

..... /10
..... /10
..... /10
..... /10

Which non-computer magazines do you buy?

Please give a rating out of 10

..... /10
..... /10
..... /10
..... /10

About You

31. How old are you?

a❑ Under 16 b❑ 16-20 c❑ 21-30
d❑ 31-50 e❑ Over 50

32. What sex are you?

a❑ Male b❑ Female

33. How computer literate do you consider yourself?

a❑ Beginner a❑ Average user a❑ Advanced user

33. What is your occupation?

a❑ At school b❑ In full-time education
c❑ Part-time employment d❑ Full-time employment
e❑ Not currently employed

34. What is your annual income?

a❑ Under £3,000 b❑ £3000-£5000
c❑ £5001-£10000 d❑ £10001-£15000
e❑ £15001-£20000 f❑ More than £20000

Thanks for taking the time to fill in the questionnaire. We'll analyse the results to make *Public Domain* a magazine you'll enjoy even more!

Don't forget it costs nothing to send the questionnaire to us if you post it in the UK. Pop it in an envelope and send it to:

***Public Domain*, June Questionnaire, Future Publishing, Freepost, Bath, Avon BA1 2XF**

RICOH PCL5 LASER PRINTER

Ricoh UK Ltd is part of the worldwide Ricoh Group of companies, originally established in Japan, in 1936. With a turnover of over $5 billion and 37,000 plus employees, Ricoh has been producing computers and peripherals since 1971. They are renowned in the industry as pioneers in the field of Office Automation Equipment and have won many awards for outstanding industrial design. Ricoh have employed all their expertise to produce a 'first' in laser printers for the worldwide market, the LP1200 with FLASH ROM.

Fully HP LaserJet III™ compatible, the new LP1200 laser printer employs industry proven laser technology. Unlike LED page printers, which use light emitting diodes, the LP1200's laser lightsource, focussed by high quality lenses, is able to produce the most accurate and intense printed images. It has 2Mb of RAM built-in and requires no additional RAM to print a full A4 page of graphics. Its fast, efficient processor and engine, together with straight paper path design, allows printing at a full 6 pages per minute. Unlike its competitors, this advanced laser engine enables the LP1200 to address a range of print resolutions up to 400dpi. A printer driver is scheduled for release in late April, to enable the Ricoh LP1200 to print at 400dpi from Windows 3.

Again, unlike the competition, the LP1200 includes a powerful document description language as standard. This language, 'LAYOUT', offers unique opportunities to develop custom-made printing systems. In particular, forms and document templates can be designed and stored electronically in the LP1200's unique FLASH ROM, alleviating the need for pre-printed forms!

The Ricoh LP1200 is a genuine laser printer and not an LED printer. Make sure you check out the competition!

See how the Ricoh LP1200 compares to its Laser Printer Competitors

FEATURES	EPSON EPL4100	HP LASERJET IIIP	MANNESMAN TALLY MT904+	RICOH LP1200
Average Street Price (*expected)	£569	£699	£699*	£699
Official RRP	£945	£1,179	£1,099	£1,195
Maximum resolution in dots per inch	300x300	300x300	300x300	400x400
Windows 3 Driver @ 400 dpi (April)	-	-	-	YES
Print Speed	6ppm	4ppm	4ppm	6ppm
Straight Paper Path	YES	-	-	YES
PCL 5 Printer Command Language	-	YES	YES	YES
HP-GL/2 Vector Graphics included	-	YES	YES	YES
Resolution Improvement/Enhancement	YES	YES	YES	YES
Full A4/300 dpi graphics with standard RAM	-	-	-	YES
Warm Up Time	<45 secs	<60 secs	60 secs	45 secs
First Page of Text Output	<20 secs	<40 secs	34 secs	<15 secs
Document Description Language included	-	-	-	YES
Flash ROM	-	-	-	YES
Upgradable Firmware	-	-	-	YES
IC Card Slot	YES	-	-	YES
Scalable Resident Fonts - in HP LJ III Emulation	-	8	8	8
Resident Bit-Mapped Fonts	11	14	14	14
AGFA Intellifont Scalable Font Technology	-	YES	-	YES
HP LaserJet III Emulation Included	-	YES	YES	YES
EPSON FX Emulation Included	YES	-	YES	YES
IBM ProPrinter Emulation Included	-	-	YES	YES
Standard Tray Capacity	100	70	100	100
Protective cover on standard tray	YES	-	YES	YES
Cost per copy*	1.65p	2.00p	1.71p	1.65p
Min-Max Paper Weight in gsm	60-157	60-105	60-120	60-157
Able to print on OHP Film	YES	YES	YES	YES
Able to print on card (157gsm - Manual Feed)	YES	-	-	YES
Auto Sensing on Parallel and Serial ports	YES	-	-	YES
Standby -Noise Level	<40dB	31.7dB	<35dB	<38dB
Printing -Noise Level	<50dB	43.3dB	<46dB	<48dB

*As quoted by manufacturers - 2/4/92 E & OE

All Trademarks are acknowledged

FLASH ROM UPGRADABLE!

400dpi 2Mb RAM 6PPM

FULLY HP LASERJET III™ COMPATIBLE

Silica Systems are pleased to introduce the revolutionary, new Ricoh LP1200. It has all of the specifications that you would expect to see in today's most technically advanced laser printer, plus a unique additional feature which places it far ahead of the competition - FLASH ROM. This 'Future Proof' technology protects the investment you make when you buy a Ricoh LP1200, as it enables you to keep up to date with new laser firmware developments. FLASH ROM is an area of memory inside the LP1200 which holds the printer's controller instruction firmware. If new firmware is developed, updated printer command languages etc, can be downloaded into this memory. Other manufacturers would require you to buy a new printer! Fonts, macros, additional emulations and graphics can also be stored in FLASH ROM, or on removable FLASH ROM IC cards. The new Ricoh LP1200 is the only laser printer to offer this FLASH ROM facility.

- **6 PAGES PER MINUTE** *Using a straight paper path design*
- **PCL5 - SCALABLE FONTS** *Latest PCL version, includes HP-GL/2*
- **SHARP EDGED PRINTING** *Ricoh FIAL (Fine Image ALgorithm) enhances resolution*
- **400dpi RESOLUTION** *Default resolution - 300dpi. Will address 200, 240 and 400dpi.*
- **2Mb RAM AS STANDARD** *Allows printing of a full A4 page of graphics at 300dpi*
- **UNIQUE FLASH ROM** *For controller software upgrade and storage*
- **IC CARD SLOT** *For programmable FLASH ROM cards*
- **EXPANSION BOARD SLOT** *For improved connectivity to additional systems eg. PC-LAN, FAX etc*
- **LAYOUT** *Document Description Language*
- **SERIAL + PARALLEL PORTS** *For connection to PC compatibles and other computers*
- **1 YEAR ON-SITE WARRANTY** *8 hour response*

DUAL BIN VERSION
SPECIAL PRICE WITH UNIVERSAL FEEDER
(AS SHOWN ABOVE)
£799
+VAT=£938.83
Ref: LAS 5200 + LAA 5238
(NORMAL FEEDER RRP £135+VAT)

LP1200 (WITH SINGLE BIN) SILICA PRICE:
£699
+VAT=£821.33 Ref: LAS 5200

SILICA SYSTEMS OFFER YOU

- ***FREE OVERNIGHT DELIVERY:*** On all hardware orders shipped in the UK mainland.
- ***TECHNICAL SUPPORT HELPLINE:*** Team of technical experts at your service.
- ***PRICE MATCH:*** We normally match competitors on a "Same product - Same price" basis.
- ***ESTABLISHED 12 YEARS:*** Proven track record in professional computer sales.
- ***BUSINESS + EDUCATION + GOVERNMENT:*** Volume discounts available **081-308 0888.**
- ***SHOWROOMS:*** Demonstration and training facilities at our London & Sidcup branches.
- ***THE FULL STOCK RANGE:*** All of your requirements from one supplier.
- ***FREE CATALOGUES:*** Will be mailed to you with offers and software/peripheral details.
- ***PAYMENT:*** By cash, cheque and all major credit cards.

Before you decide when to buy your new laser printer, we suggest you think very carefully about WHERE you buy it. Consider what it will be like a few months after you have made your purchase, when you may require additional peripherals or consumables, or help and advice. And, will the company you buy from contact you with details of new developments and products? At Silica Systems, we ensure that you will have nothing to worry about. We have been established for over 12 years and, with our unrivalled experience and expertise, we can now claim to meet our customers' requirements with an understanding which is second to none. But don't just take our word for it. Complete and return the coupon now for our latest Free literature and begin to experience the "Silica Systems Service".

MAIL ORDER HOTLINE
081-309 1111

SILICA SYSTEMS

MAIL ORDER:	1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX	**Tel: 081-309 1111**	
Order Lines Open:	Mon-Sat 9.00am-6.00pm	No late Night Opening	Fax No: 081-308 0608
LONDON SHOP:	52 Tottenham Court Road, London, W1P 0BA	**Tel: 081-580 4000**	
Opening Hours:	Mon-Sat 9.30am-6.00pm	No late Night Opening	Fax No: 071-323 4737
LONDON SHOP:	Selfridges (1st Floor), Oxford Street, London, W1A 1AB	**Tel: 071-629 1234**	
Opening Hours:	Mon-Sat 9.30am-6.00pm	Late Night: Thursday until 8pm	Extension: 3914
SIDCUP SHOP:	1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX	**Tel: 081-302 8811**	
Opening Hours:	Mon-Sat 9.00am-5.30pm	Late Night: Friday until 7pm	Fax No: 081-309 0017

To: Silica Systems, PUDOM-0692-75, 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND INFORMATION ON THE RICOH LP1200

Mr/Mrs/Miss/Ms: ..... Initials: ..... Surname: .....

Address: .....

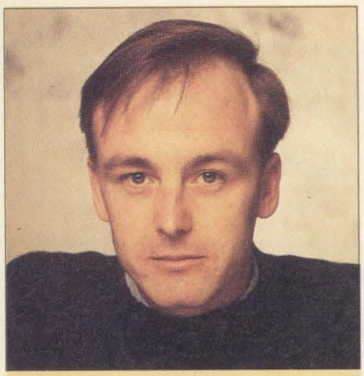
..... Postcode .....

Tel (Home): ..... Tel (Work): .....

Company Name (if applicable): .....

Which computer(s), if any, do you own? 75B

E&OE - Advertised prices and specifications may change - Please return the coupon for the latest information.



Business & Applications

REVIEWS INDEX

Boxer (PC)	83
Cal47 (ST)	89
Do-Spell (PC)	86
Ed (PC)	89
Enable/Write (Amiga)	89
Icontext (PC)	87
Journal (Amiga)	82
Nag (Amiga)	89
Pagestream 2.1 (ST)	88
Pro-Ed (ST)	88
TextPlus (Amiga)	84
Unit (Amiga)	86
TidBit (PC)	88

Make that budget look healthier by using PD and shareware to help run your business. But budget software doesn't mean having to sacrifice on quality. Jerry Glenwright sorts out the latest batch of business software...

Here's a thing. Look back say, a year or two ago, and the ST was at the forefront of the PD/shareware scene. Equalled perhaps by the PC, but definitely not bettered.

Yet the pleasant thud of PD software falling on to my welcome mat of a morning breaks down (roughly) like this: 65 per cent Amiga, 25 per cent PC and a measly 10 per cent ST! 10 per cent? What's happened?

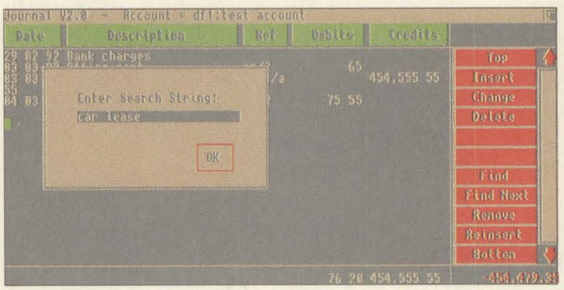
Is it that ST PD authors have gone on to pastures new, or simply that PD libraries are shifting so much of the old stuff that they are not bothering to push any new stuff that comes along?

No prizes for guessing that I suspect it's the latter...

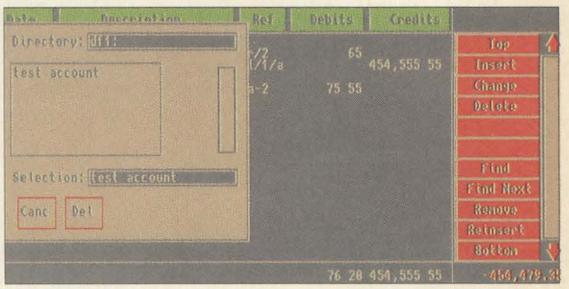
So listen up. If you're an ST PD librarian with a host of quality business wares just waiting to be bunged into an ST drive, or if you're an author with a brand new offering, send it to me, OK? Everything's evaluated, and all sources credited. I just know there's some brilliant stuff for the ST out there, and potential purchasers have a right to hear about it...

Among the hand-picked business heavyweights making column inches this month is the very latest version of Amiga word processing favourite *Text Plus*, hot off the electronic press. And the bannerware incarnation of Soft-Logik's immensely popular DTPer *PageStream* is put through it's paces.

Hang on kids, it's gonna be a bumpy ride...



With up to 1,000 transactions in any account, *Journal* search facilities are a must. Simply click the Find button and hack in a search string



You can open new accounts or delete them at any time, which means that all-things financial can be manipulated by you using the same program

Journal

Where previously you needed an army of packages to help keep control of your finances, *Journal* offers the whole lot in one block of financially-orientated code.

The first thing you'll notice is that the program *isn't* divided into separate modules. It provides a simple yet powerful main screen consisting of a transactions list. The uses for this list are limited only by your own imagination.

Sounds like a crock? That's what I thought, until I used *Journal*. Think about it. Almost every financial undertaking can be broken down into a simple series of credits and debits. This means that to track a bank account, credit card, even your invoices, all you need to do is enter the credit and debit doings into the main screen. *Journal* provides an automatic running total at the foot of the screen so you can see at a glance what's going down with your cash-flow.

The screen is divided into transactions, a variety of gadgets for manipulating them and a menu bar to enable you to open existing, and create new accounts (accounts are simply database files storing the transactions). You determine what these accounts will be used for by naming them and entering relevant transactions. You can open as many accounts as there is space on your floppy or hard disks, and each account holds up to 1,000 transactions, enough, surely, for all but the most exacting needs.

Obviously, although packed with usable features, there are no task-specific functions, so if you need special features for accounting or cheque book balancing, you'd be better off finding a program designed specifically to handle the task.

The advantage of using *Journal*, however, is that once you learn the program's intricacies, you can apply them to anything. In addition, with the program on-screen, you can switch between accounts payable your cheque account and credit card databases with a click, negating the need for constant switching between applications. There are excellent search functions to enable you to locate any transaction quickly and easily – and with 1,000 transactions, Search is a function you're likely to be using quite a lot!

For each transaction you can enter an associated date, description, reference (useful for invoice and cheque numbers for example) as well as the debit or credit.

And if you need to impress customers or the taxman *Journal* can also produce quality printed statements bearing your business, name and address.

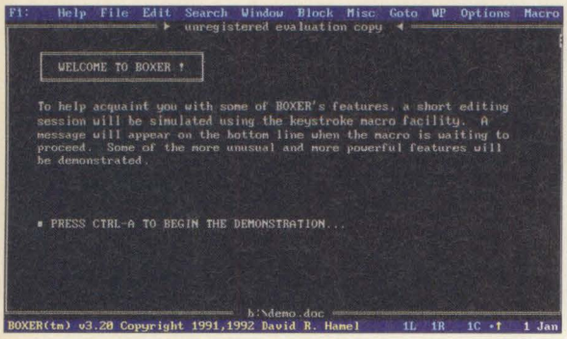
Registration buys you news of updates and any other shareware the man has a mind to write and release. Plain, solid but powerful fare for those with a financial itch to scratch.

IN BRIEF

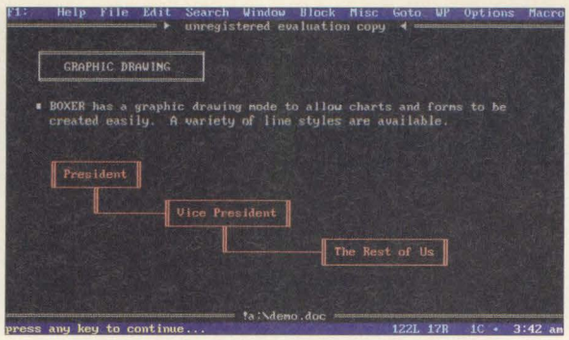
Type	Shareware
Registration fee	$15 (£9)
Author	Hal Carter
Requirements	512K
Disk number	1699

Available from
17-Bit Software, PO Box 97, Wakefield
☎ 0924 366982

AMIGA 75%


F1: Help File Edit Search Window Block Misc Goto WP Options Macro
unregistered evaluation copy
WELCOME TO BOXER !
To help acquaint you with some of BOXER's features, a short editing session will be simulated using the keystroke macro facility. A message will appear on the bottom line when the macro is waiting to proceed. Some of the more unusual and more powerful features will be demonstrated.
PRESS CTRL-A TO BEGIN THE DEMONSTRATION...
b:\demo.doc
BOXER(tm) v3.20 Copyright 1991,1992 David R. Hamel
1L 1R 1C 1 Jan

The interactive auto-running demonstration steps you through *Boxer*'s many features and enables you to become familiar with what's on offer


F1: Help File Edit Search Window Block Misc Goto WP Options Macro
unregistered evaluation copy
GRAPHIC DRAWING
BOXER has a graphic drawing mode to allow charts and forms to be created easily. A variety of line styles are available.
President
Vice President
The Rest of Us
a:\demo.doc
press any key to continue...
122L 17R 1C 3:42 am

***Boxer*'s drawing facilities enable you to highlight any text, draw keylines around columns and generally add a DTPed air to your documents**

Boxer

One of the new generation of text editors with its own customised windowing environment...

Doctor File Finder, head reviewer at Stateside try-before-you-buy magazine *Shareware*, rated *Boxer* as, "...the best text editor available today!" Who am I to contradict him (or snigger at what he believes is a *hip* name)?

Boxer is one of the new breed of windowing word processors for the PC. But that doesn't mean you need Windows or any other WIMP environment for that matter. *Boxer* simulates a WIMP machine by providing multiple windows in which to edit files, pull-down menus and optional mouse control. And what that all equates to is an exceptionally powerful processor which is also very simple to learn and use.

> *"Boxer provides an Undo function that can take you back through the last 512 edit operations."*

Boxer comes as an archived binary file called BOXER.BIN. And there's a little utility (BOXER.EXE) which conjures up the program and its support files from the .BIN archive. *Boxer* requires at least 700K of disk so it's just possible to squeeze it on to a floppy (although you'll need to format a fresh one – if a disk contains deleted files the dearchiving utility won't see enough disk space). To extract the program, type the utility name, specify a path, and a few minutes later, *Boxer*'s ready to roll.

The first thing to do after dearchiving *Boxer* is to sit back and watch the excellent auto-running demonstration, which will familiarise you with the program's many features. After installing the program, typing Demo steps you through all the interesting and unusual aspects of the program. The demo has been created using a macro feature available from within the program. You can use it to automate oft-used procedures such as formatting, spell checking and the like. Macros are easy to set up and extremely powerful.

Shortcuts

As well as the excellent menu system, there's a range of mnemonic keyboard shortcuts and commands so that those of you comfortable with computers can crack on with what you want to do without constantly accessing the menu bar. The program is also accompanied by several full sets of cloned keyboard commands from other word processors, so if you're reluctant to change word processors because it took you so long to learn the one you're using now, *Boxer* solves the problem.

The program offers full charting facilities and can creating graphs is as easy as a double-click. You can also use the rudimentary drawing features of the program to highlight and section the finished chart before printing (the demo gives a good idea of what can be done with the drawing facilities).

You can feed text into columns (as in newspapers) and text can be manipulated individually or as a column. You can combine the columns with the drawing feature to create basic desktop published designs for newsletters, hand-out leaflets and so on.

If your work regularly involves manipulating lists, *Boxer*'s Sort function will be useful. Text or figures can be sorted in ascending or descending order, numerically or alphabetically. This means that you can write a list of points as you think of them, number them in order of importance and *Boxer* can sort them into order at the click of a mouse button. Handy for those 'to do' lists.

One or two novel features have found their way into the program. As well as tabbing, you can 'detab' (ie, remove selected tabs), count characters as well as words, invert the screen display, make use of maths functions (in the shape of an on-line calculator) and fill areas with a specified character.

Block manipulation includes cut-append and copy-append, un-indent and print as well as the usual cut, copy and paste.

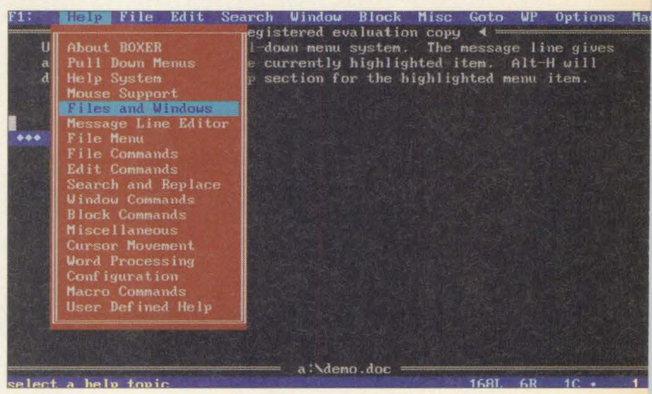
All is not lost

Probably the most startling feature, however, is the superb Undo function. If you have used the Apple Macintosh, you'll be well aware just how useful the ability to 'go-back-a-move' is when you've just trashed the only copy of a file, or formatted it incorrectly. *Boxer* provides an Undo function but not only can it step you back once, it can actually take you back (reverting to original state each time) through the last 512 edit operations.

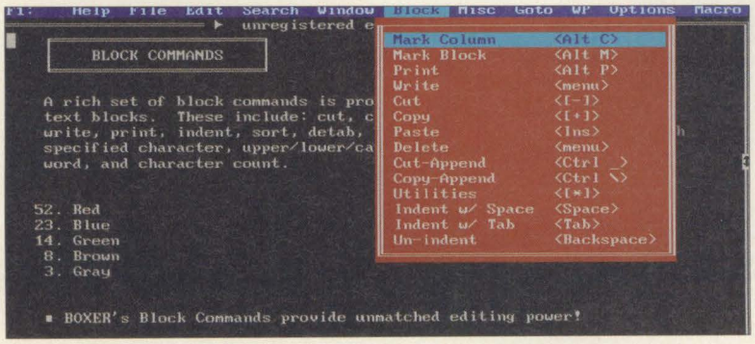
There's comprehensive printer support. Files can be reproduced single or double spaced, documents can be numbered at print time and you can select to print a range of pages or to print them all at once.

Several flavours of registration are available. $35 (around £20) brings *news* of program updates, technical help and a quick reference card. Choose the $50 (£30) registration and you'll also get program updates for free and a printed manual. The two-tier registration is a great encouragement to register (if any is needed) and should suit everyone's pocket.

cont. on p84



On-line help ensures that even the most inexperienced text editing novice won't get lost in the maze of features

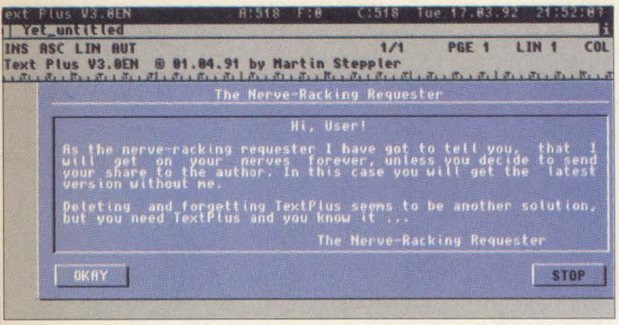


There are some unusual block manipulation options as well as the ubiquitous cut, copy and paste

IN BRIEF

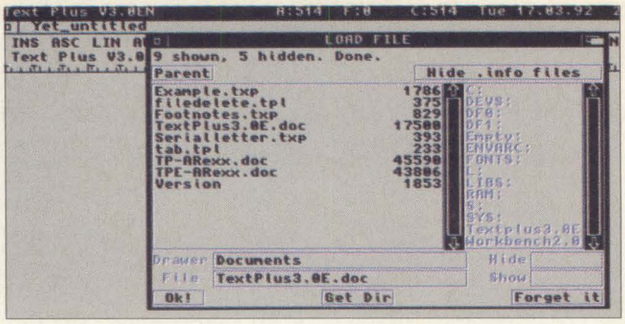
Type	Shareware
Registration fee	$35/$50 (£21/£29)
Author	David R Hamel
Requirements	256K
Disk number	WP014
Available from	Wilkes and Son, Bunbury, Tarporley, Cheshire CW6 9PE ☎ 0829 260775

PC 85%


Yet_untitled
Text Plus V3.0EN © 01.04.91 by Martin Steppler
The Nerve-Racking Requester
Hi, User!
As the nerve-racking requester I have got to tell you, that I will get on your nerves forever, unless you decide to send your share to the author. In this case you will get the latest version without me.
Deleting and forgetting TextPlus seems to be another solution, but you need TextPlus and you know it ...
The Nerve-Racking Requester
OKAY
STOP

cont. from p83

This is something you're going to see quite a lot of until you register your copy of *Text Plus* and receive a version minus the NRR (who said the Germans have no sense of humour?)



Get a load of that file selector. Typical of the quality of *Text Plus*, the file selector is a neat and easy to use list of what's on your disks. The program rejects flashy but pointless graphics in favour of a clear and functional layout

TextPlus 3.0

Essential word processing software that puts the commercial products to shame for a fraction of the price...

Text Plus is an unbelievable quality word processor which really shows what the Amiga can achieve business application-wise. Regular readers will remember the version 2.2 review in *Public Domain* issue two which managed a healthy 80 per cent in the high score stakes. *Text Plus* version 3.0 blows it away...

For an incredible £15 you get a word processor every bit as good as anything you'll find with a £100 price tag attached. It's positively dripping with the kind of functions you've paid a premium for previously.

Installation requires the usual file copying to specific directories – configuration files to S:, device handlers such as the clock to L: and various libraries to LIBS:. It's all straightforward and shouldn't cause too many problems for anyone but the most hardened technophobe.

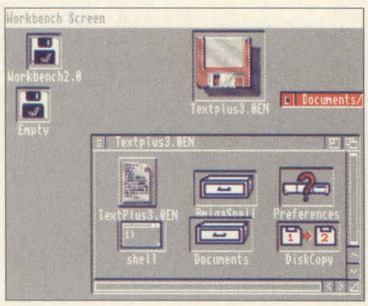
The feature list starts with multi-window editing. You can open as many files as your trapdoor RAM expansion will stretch to and switch between them at will. The Iconify feature of version 2.2 is now available as a gadget from the status window to be found at the top of the screen.

> *"TextPlus 3.0 is positively dripping with the kind of functions you've paid a premium for previously."*

Serial letters are possible using field markers and address database merge files. As well as being able to access system-level commands as in the previous version, you can run external programs by selecting them from the menu bar (including *SID*, *PowerPacker* and *FileMaster*) and there's custom function key mapping, auto-save and much more. Best of all, though, *Text Plus* is reliable.

With so many word processors you can't help feeling a little reluctant about typing the first draft of your script for *Eastenders*, knowing that unstable software could send it all crashing back into the silicon. With *Text Plus*, there are no insecurities – it's solid and utterly reliable.

Using the program is as simple as double-clicking its icon on the Workbench. The screen clears and you're presented with the neatest screen this side of a draftsman's drawing board. Whereas some other word processor authors provide unnecessary screen embellishments in an attempt to catch your eye (and consequently, your registration fee), Martin Steppler, *Text Plus*'s author, has ensured that his program's display is never less than crisp, clear and functional.



Using the Iconify feature which is found on the Workbench frees up a valuable 46K of RAM for use by other multi-tasking programs

As noted in the original review, there's a tab comb at the top of the screen, but it's inconsequential in the scheme of things and doesn't draw your attention like some of the more colourful monstrosities around. Date and time read-outs together with positional indicators and the name and path of the current file ensure that you're never stumped for pertinent information and the Iconify gadget is kept well out of harm's way in the top right corner of the screen.

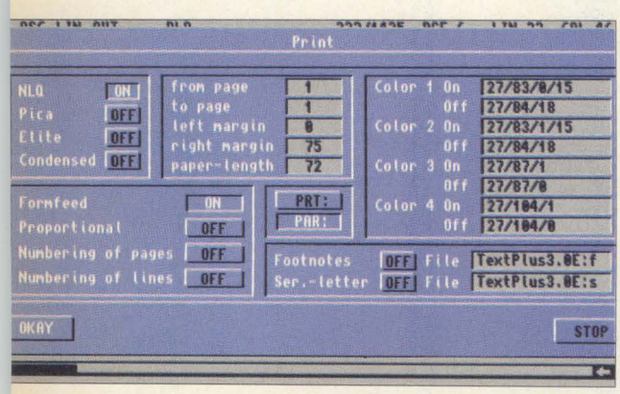
Multiple windows are piled on top of one another rather like a stack of playing cards instead of the side by side method used by some word processors. This makes cycling through them a simple matter of dragging on the title bar and clicking to activate the next window in sequence. The dialogs are pretty darned fine, too.

There's full block manipulation, including delete, load, save and print, as well as the standard cut, copy and paste, plenty of styling and formatting commands and user-defined screen colours available from a sub-menu.

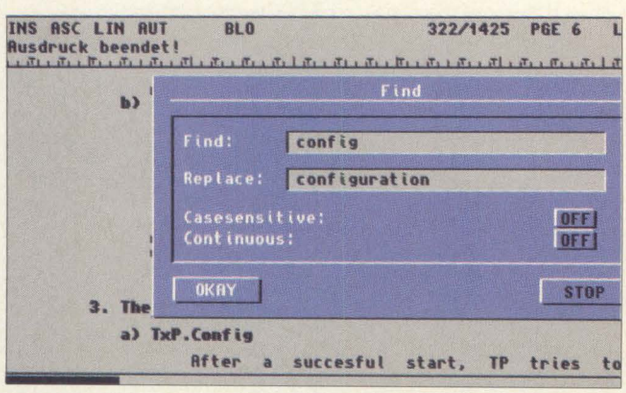
One really nice feature is the auto-save. This enables you to specify an interval between 0 and 60 minutes to automatically save the current file to disk with the current name. In addition, *Text Plus* checks the disk for an existing file with the same name. If one is found, it's given the extension .BAK (so you'll never accidentally overwrite a file again!)

On-line help is available at all times and features a comprehensive list of the programs, features and functions, and keyboard shortcuts. *Text Plus* offers custom function keys that can be redefined as macros to automate frequent procedures such as spell checking or formatting,

And the verdict? No other shareware word processor comes anywhere near it in terms of features, reliability or registration fee. *Text Plus* is a must-have slice of software.



TextPlus provides an impressively wide range of printing features accessed from this comprehensive options screen



The Search function will locate strings and control characters. It is case sensitive and will also replace items automatically throughout a document if you want

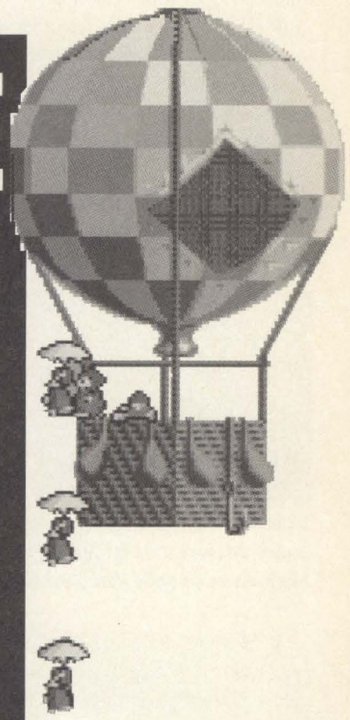
IN BRIEF

Type	Shareware
Registration fee	£15
Author	Martin Steppler
Requirements	512K
Disk number	1703
Available from	17-Bit Software, PO Box 97, Wakefield WF1 1XX ☎ 0924 366982

AMIGA 96%

AMIGA POWER

MAY ISSUE OUT NOW!



INSIDE

WE RATE THE 100 BEST GAMES EVER!

THE MOST **COMPLETE** LISTING YET!

SPECIAL **30** *PAGE FEATURE*

AND NEXT MONTH...

REVIEWED: JOHN BARNES, ADDAMS FAMILY, MYTH AND MORE! ALL THE NEW SOCCER GAMES PREVIEWED! AND! 2 MORE DISKS, INCLUDING BRILL LEGEND DEMO!

BRITAIN'S BEST-SELLING AMIGA GAMES MAGAZINE

cont. from p84

Do-Spell

For a spell-checking program Do-Spell seems to have one big disadvantage. It's Dutch, and comes with a huge Dutch dictionary!

Useless?

Actually, no. Because the program, a fast and efficient spell checker with many unusual features, also comes with a fat English dictionary and the ability to edit, update and create further dictionaries if required (and let's face it, apart from the occasional sojourn in Amsterdam, you don't come into contact with many Dutch speakers, right?)

Installing *Do-Spell* is a breeze. Format a floppy or create a directory on your hard drive, then bung the distribution floppy into drive A, CD to your new directory (of freshly formatted floppy) and type

```
A:DO-SPELL
```

The program is contained within an auto-dearchiving binary file which is heaven to watch. You type the name and it does the work. Within five minutes (less with anything other than an Amstrad), *Do-Spell*'s hot to trot.

Do-Spell's most important feature is its ability to run as a pop-up TSR (Terminate and Stay Resident) program – surely the only possible option for a spell checker? Quitting your word processor to spell check is a drag. The program requires 116K in TSR 'mode', so it's not small, but the memory overheads are more than made up for by the its delicious operation.

The program defaults to a Dutch dictionary (unsurprising as the program originates in the land of dykes whose holes are filled with little boys' fingers), so before using *Do-Spell*, you have to run a batch file which changes the default to an English dictionary.

The program is overflowing with fussy but exceptionally useful batch files like this, including ones for making the utility memory resident, adding words to the dictionary, changing the dictionary case and sorting ASCII files into usable dictionaries.

```
Submenu 3:  1  Add new words to DO-PERS.DIC.
            2  Write DO-MAIN.DIC to standard ASCII FILE.
            3  Write DO-RAM.DIC to standard ASCII file.
            4  Create DO-MAIN.DIC and DO-MAIN.IND from standard ASCII.
               file. This ASCII file must be sorted with external
               program SPELL-S.EXE till at least level 3.
            5  Create DO-RAM.DIC from standard ASCII file. The size of
               this DO-RAM.DIC together with DO-PERS.DIC must be smaller
               then 32 Kbyte. Each word must be unique and preferably most
               common words first. Make ASCII file with program LEARN.
            6  Add unsorted ASCII file to DO-MAIN.DIC. (E.g. DO-PERS.DIC)
            0  Return to main menu.

Choose option:
```

Dictionary maintenance – you can add new words to the English dictionary, save the dictionary as an ASCII file (and edit it in your favourite word processor) and lots more

```
Command line options:

     SPEL R [Keydef]   ==> Go resident. If capital R then key click on.
                           Keydef = COLOR KEY1 KEY2 KEY0.
     SPEL FILE [DEST]  ==> Check spelling "file", write result to
                           (optional) dest. Default dest = SMEW.
     SPEL A FILES(S)   ==> Add all new words of files to standard ASCII
                           file DO-PERS.DIC
     SPEL EM [FILE]    ==> Extract/Write DO-MAIN.DIC to Extended-ASCII file.
     SPEL eM [FILE]    ==> Extract/Write DO-MAIN.DIC to standard ASCII file.
     SPEL ER [FILE]    ==> Extract/Write DO-RAM.DIC to standard ASCII file.
     SPEL CM [FILE]    ==> Create DO-MAIN.DIC from standard ASCII file.
     SPEL CR [FILE]    ==> Create DO-RAM.DIC from standard ASCII file.
     SPEL AM [FILE]    ==> Add ASCII file to DO-MAIN.DIC.
     SPEL ?            ==> Display this info screen.

Window menu:          I = Ignore, treat word as correct throughout the file.
                      M = More, display more suggestions.
                      A = Add to personal dictionary.   (Only in ASCII mode)
                      E = Enter correction in the file. (Only in ASCII mode)
```

The first funky *Do-Spell* feature you come accross is its self-dearchiving – now that's what I call an installation procedure!

Hammer on *Do-Spell*'s hot key while word processing, and the program pops-up and spell checks – at lightning speed – all the words currently on screen, offering alternatives for those not in its dictionary. These words can be added to the dictionary or simply ignored. Choosing the latter option puts the word into an 'ignore' buffer so that you won't be asked about it again during the session. Alternatively, you can check an individual word under the cursor, or browse the dictionary.

An option called Dictionary Maintenance enables you to add words to an existing dictionary, dump the dictionary as an ASCII file (so that you can edit it using your favourite word processor) or create a whole new dictionary from an existing ASCII file.

Remarkably for such a funky chunk of code there's no set registration fee – you just send a note of thanks and include a voluntary contribution. Put simply *Do-Spell* is the best spell-checker I've yet seen for the PC.

IN BRIEF

Type	**Shareware**
Registration fee	**Voluntary**
Author	**Han Kleijn**
Requirements	**512K**
Disk number	**1792**

Available from:
SMS Shareware, 19 Carshalton Road, Camberley, Surrey GU15 4AQ
☎ 0276 681864

PC 85%

Unit

Ever agonised over figure conversions? You know, centimetres to inches, litres to gallons, kilowatts to horse power? Then *Unit* is the program you need. It knows about almost every unit of measurement in existence and converts between them at the click of a mouse!

Unit started life on MS-DOS and VMS machines (the Amiga version is a port by Bill Barton) and it shows in the way the program operates; operation is strictly via text-based menus and 'command line' prompts. That said, *Unit* couldn't be easier to use; the program even includes a form of rudimentary input error detection. If you enter an incorrect value, *Unit* hazards an intelligent guess at what you meant to enter!

So, double-click the program to get it running. Conversion begins with you selecting a unit group – length, time, area, electric charge or whatever. A list of the unit groups is displayed and you simply enter a number corresponding to the group you want to use.

Following your choice, the screen clears and another list is displayed, this time containing all the possible units of measure within the selected group. Choose say, Pressure as a unit group, and you'll be regaled with newtons, pounds, kilogram-force, dynes and gram-force – comprehensive, right?

Select a measure, enter a value for it and seconds later *Unit* confidently asserts that 14 dynes, for example, is the equivalent of 1.4280000e-05 kilogram-force, 0.014280000 gram-force, 3.1472000e-05 pounds and 0.00014000000 newtons!.(I bet you really wanted to know that.) Once the conversion has been performed, the results can be formatted into a detailed line chart and viewed on-screen, or sent to a printer. This is especially useful if you're producing results for a course-work assignment or the like.

A really nice feature of *Unit* is that you can edit the program's measurements database. That is, if you can think of a unit of measure not available from within the program, it can be added simply by editing *Unit*'s accompanying text file of measures (although it's extremely unlikely that what you want isn't already available).

Unlike most PD software which comes to you in the form of a single floppy containing other, often unwanted programs, *Unit* has been bundled together with similar software by its distributor, Essex Computer Systems, and is shipped as part of a three-disk collection known as the *Home Business Pack 2*. An excellent marketing idea.

A word about compatibility. The Essex computer packs are marked as A500 Plus-compatible which is commendable, but strangely, although all the programs do actually work, my Plus crashes all the time when using the disks. Could be a coincidence, I suppose. But don't let that put you off. *The Home Business Pack* is an excellent collection, it's cheap, and contains some useful software.

Without wide appeal sure, *Unit* is what number freaks everywhere have been wringing their hands for.

```
                    Unit Group Selection
1. Length                    2. Mass
3. Speed                     4. Volume
5. Area                      6. Density
7. Time                      8. Force
9. Energy/Heat/Work         10. Pressure
11. Angle                   12. Power
13. Electric Charge         14. Magnetic Induction
15. Light                   16. Thermal Conductivity
17. Coeff of Heat Transfer  18. Heat Flux
19. Viscosity               20. Temperature
21. Constants                                        (C)grs-
Which Type of Unit? 2
```

Conversion begins with you selecting a measurement group from those on the menu. To make a choice, simply enter the group's corresponding number

```
        455.00000 Stilb is equivalent to:

          0.045500000 Candelas/m2
          0.489760019 Candelas/ft2
         29.455645    Candelas/in2
          0.14000015  Millilanberts
          0.045500000 Nit
          0.15587530  Footlanberts

(R)erun Unit type, (N)ew Unit type, (Q)uit, or (C)hart:
```

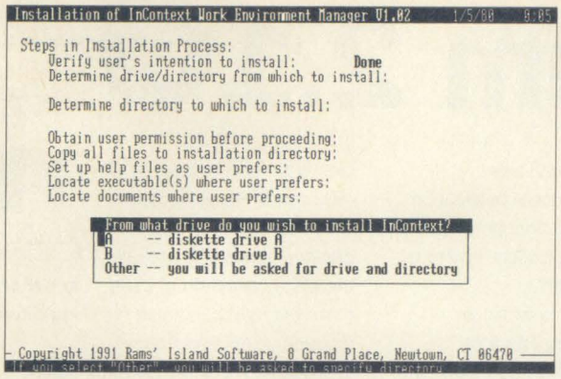
Choose say, stilb (whatever that is!), you're prompted for a value for stilbs, and within seconds, *Unit* displays the stilb equivalents in every other type of light

IN BRIEF

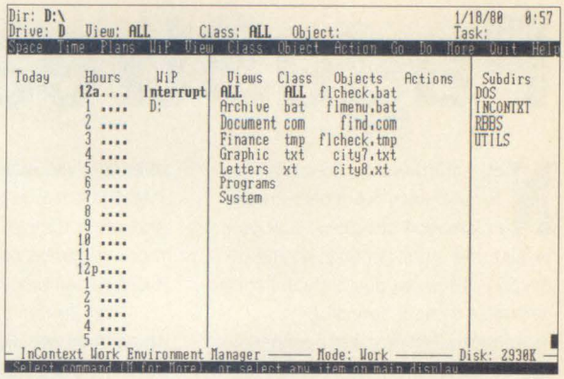
Type	**PD**
Author	**Bill Barton**
Requirements	**512K**
Disk number	**Home Business Pack 2 (Disk 4)**

Available from:
Essex Computer Systems, 118 Middle Crockerford, Basildon, Essex SS16 4JA
☎ 0268 553963

AMIGA 85%


Installation of InContext Work Environment Manager V1.02 1/5/88 8:05
Steps in Installation Process:
Verify user's intention to install: Done
Determine drive/directory from which to install:
Determine directory to which to install:
Obtain user permission before proceeding:
Copy all files to installation directory:
Set up help files as user prefers:
Locate executable(s) where user prefers:
Locate documents where user prefers:
From what drive do you wish to install InContext?
A -- diskette drive A
B -- diskette drive B
Other -- you will be asked for drive and directory
Copyright 1991 Rams' Island Software, 8 Grand Place, Newtown, CT 06470

Unlike many supposedly simple-to-use DOS front-ends, *Incontext* is accompanied by a fully-automated installation program. Unfortunately it doesn't work, so you'll need to know about archiving to get it running



The *Incontext* main screen: who said replacement front ends should be clear and simple? Obviously, the program's authors would disagree. And this is supposed to be aimed at people new to computing?

Incontext

The front end that needs no knowledge of DOS, but does that make it any less confusing?

It's a while since the business section has featured a DOS replacement front end, right? Mainly because they usually complicate further what they're supposedly designed to simplify, and consequently are better suited to the Programming & Utility section and those with tech ability.

What went wrong? Well, what's often forgotten is that to use a DOS shell you need to know how computers organise and work. That is, unlike a WIMP operating environment, where you simply point at what you want and select it with click, using a menu-based DOS overlay requires you to know about files, about directories, about disk organisation. Sure, there are no commands to remember, but you still need to understand the computer.

Incontext however, is a replacement front end designed to work the way you do. That is, rather than simply displaying file information, you're actually provided with lists of work in progress such as word processor and

> *"Incontext is a run-of-the-mill front end with some snazzy claims."*

database files. In addition, the front end provides helpful tools such as a calendar, an ASCII file reader (which requires nothing more than selection of a text file to do its stuff), an internal text editor and an archive contents lister, all of which go a long way towards make your PC's environment safe, clean and comfortable.

Obviously, the well-designed DOS shell should feature a simple installation process full of precise prompts and background information. And *Incontext* appears to offer just that. There's just one thing amiss – the darned thing doesn't work!

Unless I'm doing something very wrong (and I've tried it several times following the on-screen information to the *letter*), something's very wrong with the installation utility.

See, it's like this. You bung *Incontext*'s distribution floppy into drive A, and type INSTALL. You're prompted for various things, including a suitable path name. The default is C:\INCONTXT. And after each, the program displays a smug little message such as, "Confirm user requires installation procedure: Done."

I typed D:\INCONTXT, 'cos the D partition's where I store software under test. Anyway, after a bit of diddling, a message is displayed confirming successful installation and you're given information on how to run the program. But switch to the newly-installed directory and all that's there is a dearchiving utility (*LHArc*), and half a dozen doc files – there wasn't a DOS front end in sight!

Fine. I can use *LHArc* to dearchive the binary file INC-PROG.LZH on the distribution disk, but then, *I've* been using and programming PCs on and off for best part of ten years. The users *Incontext*'s aimed at would probably fall over if asked to change directories let alone dearchive a program. (What they need is the last issue of this very magazine in which we ran an essential beginners' guide to archiving).

Surprisingly, considering the lousy installation procedure, the program proper is actually rather good. *Incontext* works by keeping track of your applications using a plan of work, a calendar and so on. When you're feeling productive, whisper the magic words to *Incontext* and you're automatically moved to the correct drive partition and directory, '...focussing on the right materials, and perhaps even executing a desired action..." or so the official line goes.

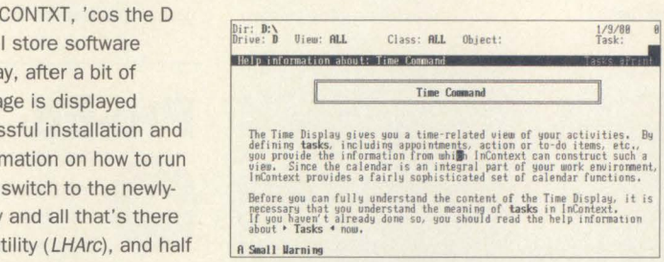
Get the picture? *Incontext* is a run-of-the-mill replacement front end with some snazzy claims, wrapped up in spiel that reads like it was written by a girl-guide feeling naughty. I mean, '...object-orientated DOS Shell gives more power... than any DOS shell on the market". Just who is *Incontext* aimed at? Anyone familiar with the concept of object orientation isn't gonna need a DOS Shell, right? OK, so it works, and works reasonably well, but it just isn't simple enough.

One nice feature is the context-sensitive *Hypercard*-like help which is available at all times. It features images, an on-line interactive tutorial, an index and lashings of buttons.

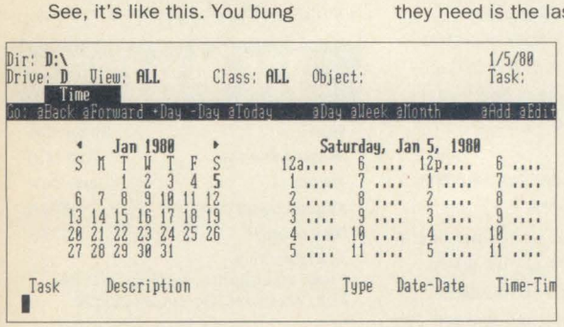
If you use *Incontext* longer than the stipulated test period, registration will shrink your wad by $60 (and probably your brain to the size of a pickled walnut...), but buys the next version when it's completed, a printed manual, tech support via phone, BBS and post, a newsletter and, finally, a version without the annoying (but valid) shareware messages displayed at every opportunity.

OK, so no DOS Shell is going to make up for all that IBM originally left out, but *Incontext* doesn't add anything new to the concept. There's a feature full of far better alternatives on page 73, and anyone daunted by DOS would be much better off reading that than wrestling with this program.

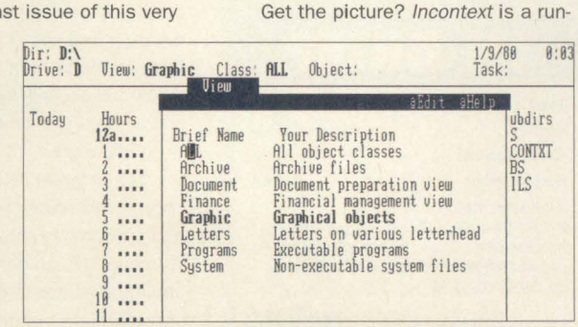
cont. on p88


Dir: D:\
Drive: D View: ALL Class: ALL Object:
1/3/88
Task:
Help information about: Time Command
Time Command
The Time Display gives you a time-related view of your activities. By defining tasks, including appointments, action or to-do items, etc,, you provide the information from which InContext can construct such a view. Since the calendar is an integral part of your work environment, InContext provides a fairly sophisticated set of calendar functions.
Before you can fully understand the content of the Time Display, it is necessary that you understand the meaning of tasks in InContext. If you haven't already done so, you should read the help information about Tasks now.
A Small Warning

One thing *Incontext* does have going for it is a monster on-line help facility based on the hypertext concept


Dir: D:\
Drive: D View: ALL Class: ALL Object:
1/5/88
Task:
Time
Go: aBack aForward +Day -Day aToday aDay aWeek aMonth aAdd aEdit
Jan 1988
S M T W T F S
Saturday, Jan 5, 1988
Task Description Type Date-Date Time-Tim

***Incontext*'s on-line extras include this rather nifty calendar with which you can assign deadlines to tasks, set alarms and so on**



OK, so if the cluttered screen is bugging you, select the View menu, then choose from a range of display options including graphics only

IN BRIEF

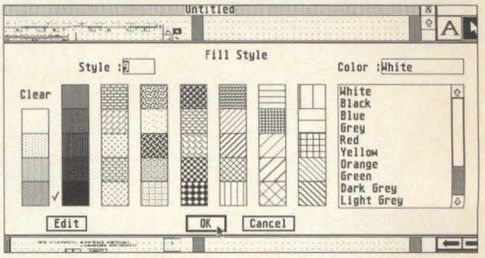
Type	Shareware
Registration fee	$60 (£35)
Author	Rudy Ramsey
Requirements	512K/Hard drive
Disk Number	AB021

Available from:
Wilkes and Son, Bunbury, Tarporley, Cheshire CW6 9PE
☎ 0829 260775

PC 75%

cont. from p87

PageStream 2.1

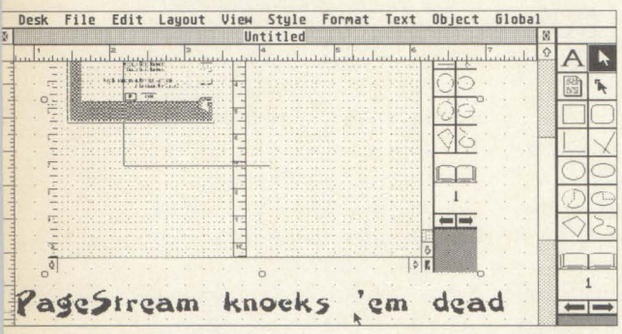


As well as illustrating your work with imported graphics, *PageStream* provides a comprehensive range of fills and styles

Not, unfortunately, the real *PageStream*, but a bannerware incarnation designed to let you explore the inner workings of one of the ST's foremost desktop publishing packages without spending megabucks. Unlike most bannerware packages however, *PageStream* is here in its entirety – the only functions which appear to have been removed are the Save routines.

OK, so Saving's probably all that had to be removed – no sane prospective publisher wants to create a book, newspaper, magazine afresh, each time they want to publish it. Nevertheless, unlike most bannerware offerings, you really can use *PageStream* to produce a publication and see it through to final printing, and that's got to be an excellent way to try it before you buy, right?

PageStream bannerware is shipped on two disks. The first contains the program proper along with drivers for various import files (*MacPaint*, IFF/ILBM, *1st Word*, *Aegis* and many more), a complete dictionary for spell checking from within the program (American English, but nonetheless usable) and a list of supported printers. The second contains a folder stuffed with printer drivers and another filled with fonts.



One of the slightly more exotic fonts accompanying *PageStream*. Don't worry, plain old Helvetica is provided too!

Having booted up, production begins by selecting New from the File menu and defining a document size from the Page Size dialog which follows. Now all you have to do is create picture boxes, text columns and so on, import graphics and text, overlay headlines and... generally create a publication step-by-step like those seen on every newsstand. Piece of cake.

Just like every other desktop publishing package, there's a collection of tools down the right-hand side for creating boxes and frames, entering text, scaling graphics and so on. There's also a standard menu bar providing access to style, formatting, layout and other functions.

Downside? It's slow – screen updates on my 1040 crawl across the display at a pitiful rate. Is this because it's a bannerware version? Who knows? But I would have thought that *PageStream*'s authors would have provided a demo which offers the greatest speed possible in order to catch the eye – and wallets – of those thinking of buying a copy.

It's prone to crashing too, especially if you're the impatient type who likes to click and type ahead whenever the machine goes into 'think' mode. Sometimes the program seems about as steady as a ten-month-old taking its first steps!

That said, Soft-Logik really must be commended for releasing such a comprehensive bannerware version into the public domain. If you're thinking seriously about investing in *PageStream*, you *must* see the bannerware version first.

Strangely, there is no accompanying on-disk documentation (at least, if there is any, I couldn't find it!) so you'll have to sus out the program's features for yourself. It isn't difficult, though – *PageStream*'s nothing if not intuitive.

IN BRIEF

Type	**Bannerware**
Author	**Soft-Logik**
Requirements	**1Mb/double-sided floppy drive**
Disk number	**DTP-18**

Available from:
Caledonia PDL, 250 Oldtown Road, Hilton, Inverness IV2 4PT
☎ 0463 225736

ST **75%**

TidBit

TidBit is a DOS front-end overlay for your PC, but unlike many similar programs, it doesn't try to take over the system or the way you like to work. Instead, the program provides a clear menu from which you can highlight and select oft-used options such as copying a file, making a directory and so on.

Bung *TidBit* in your AUTOEXEC.BAT file for DOS functions and program execution consisting of little more than a menu selection

The program can be run from the command-line, but the best way to use it is to install it into your AUTOEXEC.BAT file and have it open up automatically whenever you switch on the PC. After that, running any DOS program is a simple matter of selecting EXECUTE COM/EXE FILE from the menu and choosing the desired program. Much better than all that tedious typing.

On-line help completes an unexciting but solid and worthy package. And remember, it's one of breed of very rare beast – true PC public domain – so it's almost worth a look for novelty value alone.

IN BRIEF

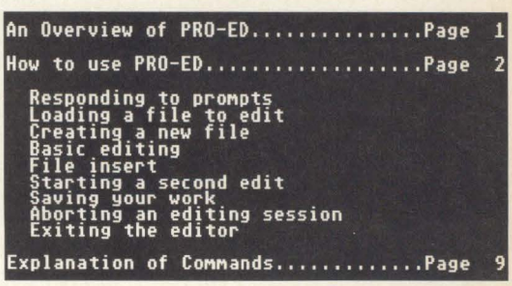
Type	**PD**
Author	**Aware Software**
Requirements	**512K**
Disk number	**1038A**

Available from
Public Domain and Shareware Library, Winscombe House, Beacon Road, Crowborough, East Sussex TN6 1UL
☎ 0892 663298

PC **45%**

Pro-Ed

Text editors don't come much simpler than Jerry Cole's *Pro-Ed* word processor. Primarily intended as a code generator for programmers, Mama Cole's little boy has nonetheless provided a free and funky word processor that is a pleasure for *everyone* to use.



Not exactly rippling with features this, *Pro-Ed* is a usable text editor nonetheless, and one which is nothing if not extremely fast

When all you want to do is bang out a little apology to the bank manager or a note for your secretary, firing up the likes of *WordPerfect*, or *Protext*, especially from a floppy disk, is a big waste of time.

Enter *Pro-Ed*.

The program dispenses with the often cumbersome WIMP environment and provides a simple command line in its stead. OK, so normally we warn about the complexity of command lines. But don't let that put you off. *Pro-Ed* is simple, and once learned, *very* quick to use. Miniature it may be, but there's full search and replace, block manipulation, cut, copy and paste. Not very exciting, but as handy to have about as a box of man-sized tissues.

IN BRIEF

Type	**Shareware**
Registration fee	**$15 (£9)**
Author	**Jerry Cole**
Requirements	**512K**
Disk number	**1781**

Available from
South West Software Library, PO Box 562, Wimborne, Dorset BH21 2YD

ST **40%**

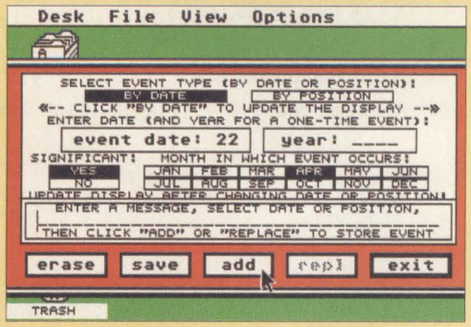
Cal47

There is a plethora of pop-up appointments programs in the public domain but here's one with a big difference: it's actually a pleasure to use!

Cal47 runs as a standard Desktop Accessory. That is, you put it on a boot disk along with up to five other accessories, wham it in a drive and switch on. Seconds later, *Cal47* is checking out the system date and comparing it with an on-disk pre-defined file of important schedules. If there's a match, up pops the program to remind you about that important meeting with the bank manager, your wedding anniversary or whatever else that you think might slip your mind

No match, and *Cal47* slinks quietly away back into the silicon – you'll never even know it's on your disk. The program requires only a minuscule 35K of valuable RAM to run, so even embryonic tycoons operating tiny businesses on half meg machines should find the program to be pretty useful.

Cal47 is simple to set up, easy to use, and very useful. And at the price of a disk all selective amnesiacs should check it out.



Available from under the Desk menu, *Cal47* is always on hand to remind you of what's going on in your daily doings!

IN BRIEF

Type	PD
Author	Bill Aycock
Requirements	512K
Disk number	ACC21
Available from	Softville, Unit 5, Stratfield Park, Elletra Avenue, Waterlooville, Hants PO7 7XN ☎ 0705 266509

ST 55%

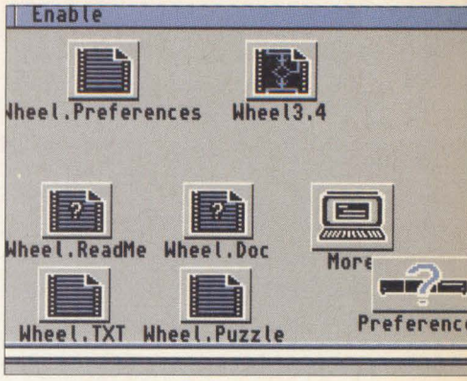
Enable/Write

Aimed squarely at those new to computing, *Enable/Write* attempts to provide quality, fully-featured yet easy-to-use word processing for the novice Amiga owner. Attempts being the operative word.

The program features half a dozen on-line interactive tutorials illustrating how to edit, copy between files and so on. It sounds good in theory, but because the tutorials are written as scripts, the screen flickers like a lighthouse with a drunken keeper at the controls! Even the most enthusiastic learner is going to get more than a tad irritable after a few minutes of this.

The Software Group, the programming team that produced *Enable/Write*, has broken down the normal word processing features into manageable chunks and grouped them on separate screens. So, for example, rather than pressing the right mouse button to call up a menu bar, instead you switch to another screen.

The main problem with Enable/Write (apart from that flicker) is that nothing is where you want it, when you want it, and it's easy to get lost or lose track of what you were doing. You spend more time looking for functions than you do actually writing. It's an unspectacular text editor with a clumsy front-end and an irritating flicker. Not the best combination.



There's always a keyboard shortcut available to make things easier, but *Enable/Write* has a long way to go before becoming the beginner's favourite way to learn about text editing

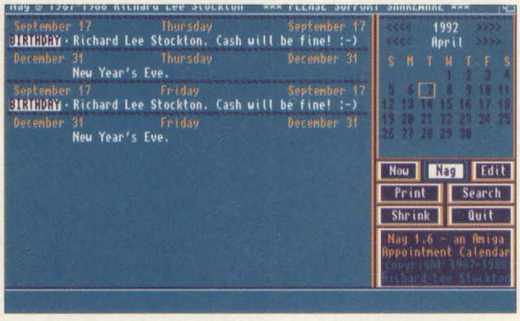
IN BRIEF

Type	PD
Author	The Software Group
Requirements	512K
Disk number	GAM302AM
Available from	Riverdene PDL, 30a School Road, Tilehurst, Reading, Berkshire RG3 5AN ☎ 0734 452416

AMIGA 35%

Nag

Install *Nag* on your Amiga and forget about the next two year's worth of appointments. Or at least, forget about them until *Nag* pops up on your screen to remind you of those important dates.



Lashings of appointment-orientated information coupled with more buttons than Cadbury's chocolate factory make *Nag* one of the better Amiga reminders – and it talks to you as well!

The aptly-named reminder application offers up to 99 events in any one 24-hour period over 24 months. This neat little business utility is fully Workbench-compatible so there's no need to fumble with the Shell and command lines, and once set, the program can be forgotten about.

Every time you switch on the Amiga however, *Nag* seeks out the system date and compares it with pre- and user-defined appointments and schedules that it has stashed away in its files. If a match is found, up comes *Nag* to tell you all about it. You may have forgotten about your mum's birthday, but *Nag* won't have.

One very nice feature is *Nag*'s ability to make full use of the Amiga's capacity for speech – it's a gas having your Amiga *tell* you about an impending appointment (even if it does sound uncannily like Lloyd Grossman doing an imitation of a Dalek).

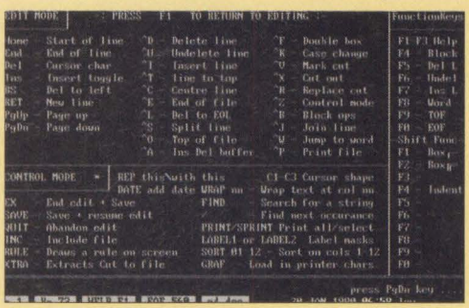
IN BRIEF

Type	Shareware
Registration fee:	$10 (£6)
Author	Bob Leivian
Requirements	512K
Disk number	481
Available from	Cranham's Leisure Software, PO Box 7, Bletchley, Milton Keynes MK2 3YI ☎ 0908 274819

AMIGA 55%

Ed

Extensive on-line help is just one of the features which makes the *Ed* miniature word processor a must for PCers with vital missives to generate.



With *Ed* around friendly text editing is just a command line away. It might be small, but it packs in the features

Run the program and you're prompted for a file to edit. Hack in an existing one or simply press Return to create a new file. Alternatively, if you want the program to boot up with a file ready and waiting to be worked on provide a filename along with *Ed* at the command line as a shortcut; to do this just type `A:\Ed Filename` then press return.

Unlike many overblown commercial applications, *Ed* is ultra-fast yet extra friendly. Author Barry Gilpin wants you to think of *Ed* as a friend and believe me, it isn't long before that's exactly what you're doing! You'll even be on each other's Chirstmas card list .

Although offered as a simple word processor, an impressive feature list includes excellent navigating (start/end of line, page up/down, top of file/end of file), search, case change, an on-screen ruler (which you can switch off) and lots more. Good standard PD fare.

IN BRIEF

Type	PD
Author	Barry Gilpin
Requirements	512K
Disk number	1023
Available from	Public Domain and Shareware Library, Winscombe House, Beacon Road, Crowborough, East Sussex TN6 1UL ☎ 0892 663298

PC 55%

cont. on p90

cont. from p 89

The best of the rest • The best of the rest • The best of the rest

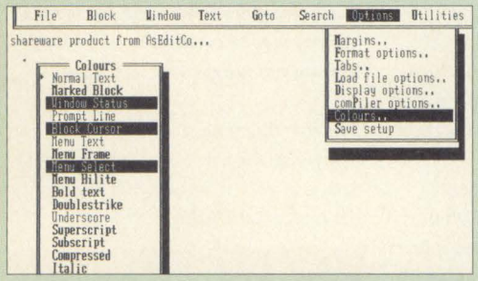
La créme de la créme. The top of the pile. The best of the bunch. The ones that the man from Delmonté would say 'yes' to. That's exactly what these charts are – the top scoring business and applications software for each machine collated from the first six issues of *Public Domain*...

PC

❶ Easy Edit II — Issue 2 — 95%

AsEditCo, Warren Cottage, Warren Lane, Elmswell, Suffolk IP30 9DT ☎ 0359 41601

A superb and friendly word processor that is so packed with excellent features that you will hardly be able to believe the £35 shareware fee.



The cheapest fully-featured word processor around: *EasyEdit II*

❷ Homebase — Issue 1 — 95%

Brown Bag Software, 2155 South Bascom Avenue, Suite 114, Campbell CA 95008 ☎ 0101-408-559-4545

What this desktop organiser doesn't offer you definitely don't need – word processor, database facilities, compact comms functions to name a few.

❸ PowerMenu — Issue 1 — 90%

Brown Bag Software, 2155 South Bascom Avenue, Suite 114, Campbell CA 95008 ☎ 0101-408-559-4545

A friendly menu-driven replacement front-end to do away with the dreaded DOS.

❹ Marketeer 2.1 — Issue 2 — 90%

Fantasia Shareware, PO Box 1231, Clutton, Bristol ☎ 0761 453716

For the field sales rep, *Marketeer* is a contacts manager and sales prospecting system and is the ultimate tool in organising lists of clients.

❺ Word Fugue — Issue 2 — 90%

Advantage, 56 Bath Road, Cheltenham, Glos GL53 7HJ ☎ 0242 224340

An excellent and adaptable word processor that even generates tables and lists with the minimum of fuss and includes an 100,000-word dictionary. Shareware.

❻ Goal Seeker — Issue 3 — 90%

Brown Bag Software, 2155 South Bascom Avenue, Suite 114, Campbell CA 95008 ☎ 0101-408-559-4545

A handy little add-on utility for speadsheets that can work out the relationship between data so that you can work out 'goals'.

❼ Task-Pro — Issue 5 — 87%

Ensign Systems, Freepost, London SE26 5BR ☎ 081-778 2871

Delegates tasks to the right people to make sure the job gets done using this handy organisation/scheduler program. It looks pretty good, too.

❽ FrontDesk — Issue 6 — 85%

Ensign Systems, Freepost, London SE26 5BR ☎ 081-778 2871

To help out overworked receptionists and secretaries *FrontDesk* has the ability to log telephones calls, keep track of appointments, store telephone numbers, etc.

❾ Mail-Pro — Issue 5 — 85%

Wessex Systems, 108 Ensbury Park Road, Bournemouth ☎ 0202 546466

An excellent little database based on a card index system. Simple set-up, free-form data entry, filters for mail-shots, label printing, built-in text editing – it's got the lot.

❿ Contacts Plus — Issue 5 — 85%

Ensign Systems, Freepost, London SE26 5BR ☎ 081-778 2871

A computerised version of the Rolodex which lets you keep track of contacts' addresses and telephone numbers. All the features are available at a single keypress.

ST

❶ Word400 — Issue 6 — 95%

Goodman Enterprises, 16 Conrad Close, Meir Hay Estate, Longton, Stoke-on-Trent ST3 1SW ☎ 0782 335650

A stunningly good word processor that can be installed as a desktop accessory so that you can call it up, even when you are using another application.

❷ Double Sentry Elite — Issue 6 — 93%

Caledonia PDL, 250 Oldtown Road, Hilton, Inverness ☎ 0463 225736

Upgrade of *Double Sentry*, a massive collection of everything you need to track and manipulate small – and large – business finances. Simple to use and packed with features.

❸ FastBase — Issue 3 — 93%

Caledonia PDL, 250 Oldtown Road, Hilton, Inverness ☎ 0463 225736

Possibly the best shareware database in existence, *FastBase* enables you to open up to 22 database files at once and is stuffed with features.

❹ Arabesque — Issue 4 — 92%

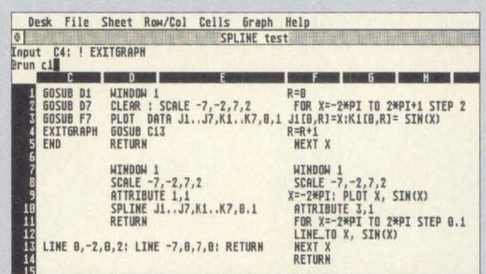
South West Software Library, PO Box 562, Wimborne, Dorset BH21 2YD

The drawing package that no ST-owning draftsman should be without.

❺ Sheet 2.0 — Issue 1 — 90%

Goodman Enterprises, 16 Conrad Close, Meir Hay Estate, Longton, Stoke-on-Trent ST3 1SW ☎ 0782 335650

A spreadsheet that can cope with the most complex of today's financial double dealings.



***Sheet 2.0:* like having your own personal mathematician**

❻ ST Writer — Issue 1 — 90%

Goodman Enterprises, 16 Conrad Close, Meir Hay Estate, Longton, Stoke-on-Trent ST3 1SW ☎ 0782 335650

Quite simply one of the best shareware word processor around for the ST – it beats the pants off most commercial products too, so what are you waiting for? Get it.

❼ Fone Cost 2.0 — Issue 2 — 90%

Ainley Publishing and Communications, 16 Copyground Court, Copyground Lane, High Wycombe HP12 3HG

If you want to keep your phone bills to a minimum you need *FoneCost* – it counts BT phone units ticking by as you natter away.

❽ Opus — Issue 3 — 90%

Softville, Unit 5, Stratfield Park, Elletra Avenue, Waterlooville, Hants

A true third-generation spreadsheet with extended mathematical functions, a fully functional text editor and lots more besides.

❾ The Guru — Issue 5 — 85%

Wooleysoft, Humblesknowe Cottage, Ramoyle, Dunblane, Perthshire, Scotland FK15 0BA

A interactive card file system that can be called up from within GEM applications.

❿ Easy Text — Issue 2 — 85%

Goodman Enterprises, 16 Conrad Close, Meir Hay Estate, Longton, Stoke-on-Trent ST3 1SW ☎ 0782 335650

This is a budget desktop publishing package that is an attempt to provide true page layout on the ST – and it works fairly well.

AMIGA

❶ AMOS Database 3.01 — Issue 6 — 92%

Déjà Vu, 25 Park Road, Wigan, Lancs, WN6 7AA ☎ 0942 495261

Masses of text and picture manipulation, pop-up menus for everything, simple file access and a very impressive front-end make AMOS database 3.01 the best database package you're going to find in the public domain.

❷ Uedit — Issue 3 — 90%

Cranham's Leisure Software, PO box 7, Bletchley, Milton Keynes, MK2 3YL ☎ 0908 640763

A fully-customisable text editor which means that you can make *Uedit* fit your exact requirements. What's more, it's a doddle to use, too.

❸ Text Engine — Issue 3 — 86%

17 Bit Software, PO Box 97, Wakefield WF1 1XX ☎ 0924 366982

Text Engine is simple to use and offers a comprehensive range of features.

❹ TapeCover — Issue 4 — 85%

17-Bit Software, PO Box 97, Wakefield WF1 1XX ☎ 0924 366982

If you make a lot of your own recordings on cassette tapes then you need an easy-to-use tape cover designing program. And that's exactly what this is.

❺ Transcript 1.0 — Issue 2 — 85%

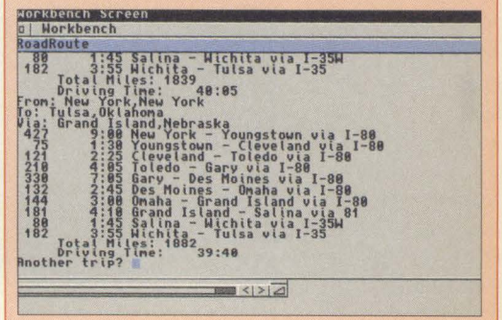
Software Expressions ☎ 0272 637634

An exceptional word processor, packed with features and lightening fast to use.

❻ Road Route — Issue 4 — 80%

Vally PD, PO Box 15, Peterlee, County Durham SR8 1NZ ☎ 091-587 1195

How to get from A to B using major roads. Written for the US so you'll have to put in a little time and effort feeding in your local data to make it work for you.


Workbench Screen
Workbench
RoadRoute
88 1:45 Salina - Wichita via I-35W
182 3:55 Wichita - Tulsa via I-35
Total Miles: 1839
Driving Time: 40:05
From: New York,New York
To: Tulsa,Oklahoma
Via: Grand Island,Nebraska
427 9:00 New York - Youngstown via I-80
75 1:30 Youngstown - Cleveland via I-80
121 2:25 Cleveland - Toledo via I-80
210 4:05 Toledo - Gary via I-80
330 7:05 Gary - Des Moines via I-80
132 2:45 Des Moines - Omaha via I-80
144 3:00 Omaha - Grand Island via I-80
181 4:10 Grand Island - Salina via 81
88 1:45 Salina - Wichita via I-35W
182 3:55 Wichita - Tulsa via I-35
Total Miles: 1882
Driving Time: 39:40
Another trip?

***Road Route:* handy help for getting from A to B**

❼ Text Plus — Issue 2 — 80%

Amiganuts United, 169 Dale Valley Road, Hollybrook, Southampton SO1 6QX

Another very good word processor which is absolutely bursting with features.

❽ ElectroCAD — Issue 3 — 80%

Crazy Joe's PD,145 Effingham Street, Rotherham, South Yorkshire S65 1BL ☎ 0709 829286

A comprehensive schematic designer for the electronic doodler. It provides an on-screen drawing board dedicated to the design of electronic circuits.

❾ Bank'n — Issue 3 — 80%

Cranham's Leisure Software, PO box 7, Bletchley, Milton Keynes, MK2 3YL ☎ 0908 640763

The perfect bank account manager for your Amiga. It enables you to store every transaction, total them up and generate handy reports for printing out.

❿ Ami-Back — Issue 5 — 75%

17 Bit Software, 2/8 Market Street, Wakefield WF1 1DH ☎ 0924 366982

An automatic back-up program for the busy (or lazy) executive.

NEW BARGAIN PRICE • NEW BARGAIN PRICE

SAVE OVER £5

~~£23.40~~ NOW £17.90

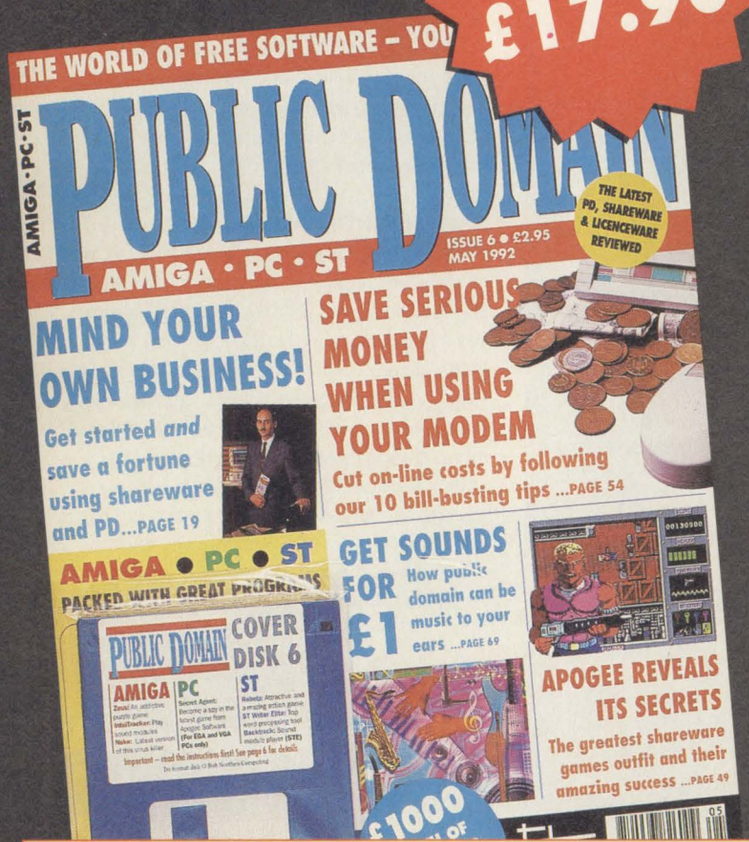
ON A YEAR'S SUBSCRIPTION!

***PUBLIC DOMAIN* IS NOW WITHOUT A COVER DISK, ENABLING US TO INTRODUCE NEW LOWER PRICES. PLUS: BY TAKING OUT OUR SPECIAL SUBS OFFER, YOU'LL SAVE AN EXTRA FIVER INTO THE BARGAIN!**

Complete and return the coupon below NOW or telephone our credit card hotline on 0458 74011.

YOUR NO-RISK GUARANTEE

You may cancel your subscription at any time and we will refund you for all unmailed issues – no questions asked. Don't delay, subscribe today to guarantee your copy and save some serious money into the bargain.


THE WORLD OF FREE SOFTWARE – YOU
AMIGA • PC • ST
PUBLIC DOMAIN
AMIGA • PC • ST
ISSUE 6 • £2.95
MAY 1992
THE LATEST PD, SHAREWARE & LICENCEWARE REVIEWED
MIND YOUR OWN BUSINESS!
Get started and save a fortune using shareware and PD...PAGE 19
SAVE SERIOUS MONEY WHEN USING YOUR MODEM
Cut on-line costs by following our 10 bill-busting tips ...PAGE 54
AMIGA • PC • ST
PACKED WITH GREAT PROGRAMS
PUBLIC DOMAIN COVER DISK 6
AMIGA PC ST
GET SOUNDS FOR £1
How public domain can be music to your ears ...PAGE 69
APOGEE REVEALS ITS SECRETS
The greatest shareware games outfit and their amazing success ...PAGE 49
£1000

YES! Please enter my subscription for 12 issues of *Public Domain*

☐ UK £17.90 ☐ EUROPE £42.90 ☐ REST OF WORLD £67.90

All overseas subscriptions are sent Airmail to ensure you receive your magazine and disks undamaged and as fast as possible.

I would like to receive the following back issue(s) of *Public Domain*

Number of copies	Order code	Price

Please send me ____ ***Public Domain* binder(s)** **Price £**

Order Number – PD05 **Total £**

METHOD OF PAYMENT

☐ **CHEQUE** Please make payable to Future Publishing Limited and enclose with this form in an envelope and send to the address below

☐ **ACCESS/VISA**

card number ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ expiry date ☐☐☐☐

Name

Signature

Address

Postcode

Telephone number

Send your coupon and cheque (if applicable) to:

PUBLIC DOMAIN SUBSCRIPTIONS, FREEPOST, SOMERTON TA11 7BR

THIS COUPON IS VALID UNTIL 30 JUNE 1992 PD/MAG/0692

Public Domain Binder

Keep your *Public Domain* magazines together and in pristine condition with this smart jade and white binder.

Price £5.99 inc P&P
Two for £11.00 inc P&P
Order No. PD05

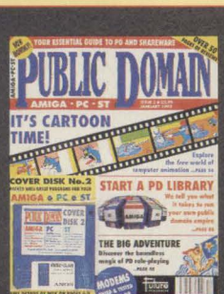
To order fill in the coupon on the right

BACK ISSUES

ISSUE 1

What is PD and shareware? We give you all the facts. Comms – get your software for just the cost of a phone call.

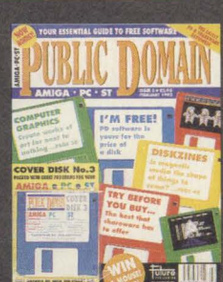
Price £3.45 inc P&P
Order No. PDMO1



ISSUE 2

Animation – how you can produce quality cartoons. Could *you* run a PD library? Viruses – protecting your computer.

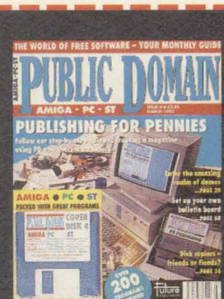
Price £3.45 inc P&P
Order No. PDMO2



ISSUE 3

Graphics galore – vent your artistic bent on your computer. What disk magazines can offer you. Choosing the right mouse.

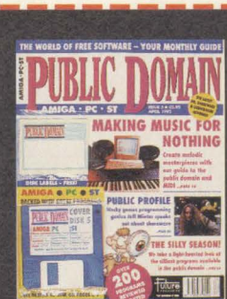
Price £3.45 inc P&P
Order No. PDMO3



ISSUE 4

Publishing on a shoestring – get into PD DTP. The amazing world of demos. Set up your own bulletin board.

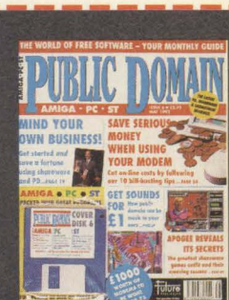
Price £3.45 inc P&P
Order No. PDMO4



ISSUE 5

Using MIDI to control musical instrumemnts. Jeff Minter interview. Pointless PD – we look at the silliest stuff around.

Price £3.45 inc P&P
Order No. PDMO5



ISSUE 6

Mind your own business – we tell you how. How public domain can be music to your ears. Apogee interviewed.

Price £3.45 inc P&P
Order No. PDMO6

SUBSCRIPTION HOTLINE 0458 74011

PD PORN

EXPOSED!

Even though there are now well over a thousand different hard-core pornographic disks available from UK PD libraries, there's only been one prosecution to date. But, as Adrian Slater finds, time is running out for the purveyors of porn. *Public Domain* investigates the sordid trade that's ruining the the world of PD and asks what can be done?

pornography (pɔ:'nɒgrəfi). [f. as prec. + -Y. So F. *pornographie*.]

1. (See quot.)

1857 DUNGLISON *Med. Dict.*, *Pornography*, a description of prostitutes or of prostitution, as a matter of public hygiene. **1858** in MAYNE *Expos. Lex.* **1895** in *Syd. Soc. Lex.*

2. a. Description of the life, manners, etc., of prostitutes and their patrons; hence, the expression or suggestion of obscene or unchaste subjects in literature or art; pornographic literature or art. Also qualified by *hard* or *soft*, with reference to *hard core* (b) s.v. HARD *a.* 23 b, *soft core* s.v. SOFT *a.* 29, to denote pornography

Difficult word 'Pornography'. It's one of those moving targets. You try and pin it down with a definition and it shifts. Take the entry in the *Oxford English Dictionary* above revealing the word's Greek roots; the prefix porne – meaning harlot – and the suffix ography – meaning a description of manners. So, we can safely assume pornography has been defined for at least 3,000 years as material dealing with the activities of prostitutes but, and this is where the difficulty begins to arise, where does the loaded term 'obscene' come into the definition?

Consult the dictionary again. 'Obscene'. Much more specific this time; repulsive, filthy, loathsome, grossly indecent, lewd. Jeez....and I thought we were talking about everyday sexual intercourse. Obviously we're not; it's got to be something far worse. So just what is it that these prostitutes have been getting up to for the last 3,000 years then?

A touch flippant and simplistic maybe, but to understand the history and attraction of pornography it's a question that needs addressing. The answer's equally simple – it's either for men who have no idea or can't get enough or, more disturbingly, for men who are transfixed by the more extreme forms of sexual activity and who aren't repulsed by it. Men who no longer find it hard to imagine anything. For we're not just talking about 'everyday sexual intercourse' – however difficult that may be to define – no, we're talking about practices that are much more difficult to imagine.

Available to everyone

Because, let's face it, it is hard to imagine. Hard to imagine why anyone would want to know what it's like to have sex with a baby, or a dog, or a pig. But you can buy disks in the public domain that'll put you in the picture. Just as you can buy disks that have a Page Three girlie smiling at you. Or disks where men torture women while they're raping them. And what's more, anyone can buy these disks. Despite adverts stating you have to be over 18 to buy it, who can tell the age of someone who's sent in a printed letter and a postal order? So where do you draw the line?

You see, it's important to at least try to fix a definition because otherwise we just end up dealing with a whole set of presumptions. Like what's the difference between 'Page Three' and 'soft-core'? What's the difference between both these and 'hard-core'? What's an 'adult title'? What's a 'glamour disk'? All of these terms are going to crop up in this article and yet none of them appear in the Oxford dictionaries. Not because they're too new, but because they're just too colloquial and have not yet been clearly defined.

"There is currently no law designed to deal specifically with the growing problem of pornographic computer software."

So what about the colloquial definition of pornography, then? What does the man in the street reckon the term means? It depends on who you ask. Some people would say if you have Page Three breasts in four of the national newspapers why not have Page Three vaginas? And how can the *Daily Mirror* decide to draw the line at showing nipples? How can nipples make any difference? Others will say, 'oh that hard-core stuff – donkeys and that – it's a laugh ain't it guv'. Or the *Sunday Sport*-style headline: 'Woman Found On Moon with 186" knockers' – it's just a harmless laugh. It has to be, hasn't it , otherwise why would it be in the paper shop on a Sunday morning?

So where do you draw the line? Some would say it is not up to anyone else but down to each

individual to draw it at all: what they get up to in their private lives is their business.

Unclear laws

Like all lines that have to be drawn, they're eventually drawn by The Law. And like it or not, what The Law says goes. It provides the definitions and decides the punishments given for stepping over the line. Because once you start selling sexuality you're no longer indulging in privacy; you're stepping out into a market place where anyone, no matter what age, can buy your products. And society needs to protect the innocent from the corrupt, it's as simple as that.

Unfortunately, though, there is no law specifically designed to deal with pornographic computer software. As DI Brittan of Avon and Somerset Vice Squad told *Public Domain*, "No precedent has been set... what we have here is a series of digital codes, not a picture in a magazine or a video. The Obscene Publications Act doesn't cover it".

However, this is not to say the laws pertaining to pornography aren't sufficiently flexible to be applied to cover pornographic computer disks. Consider for one moment how they are made. There are three types of hard-core disks in circulation in the public domain, what we might term the static, animated and interactive forms of disk pornography.

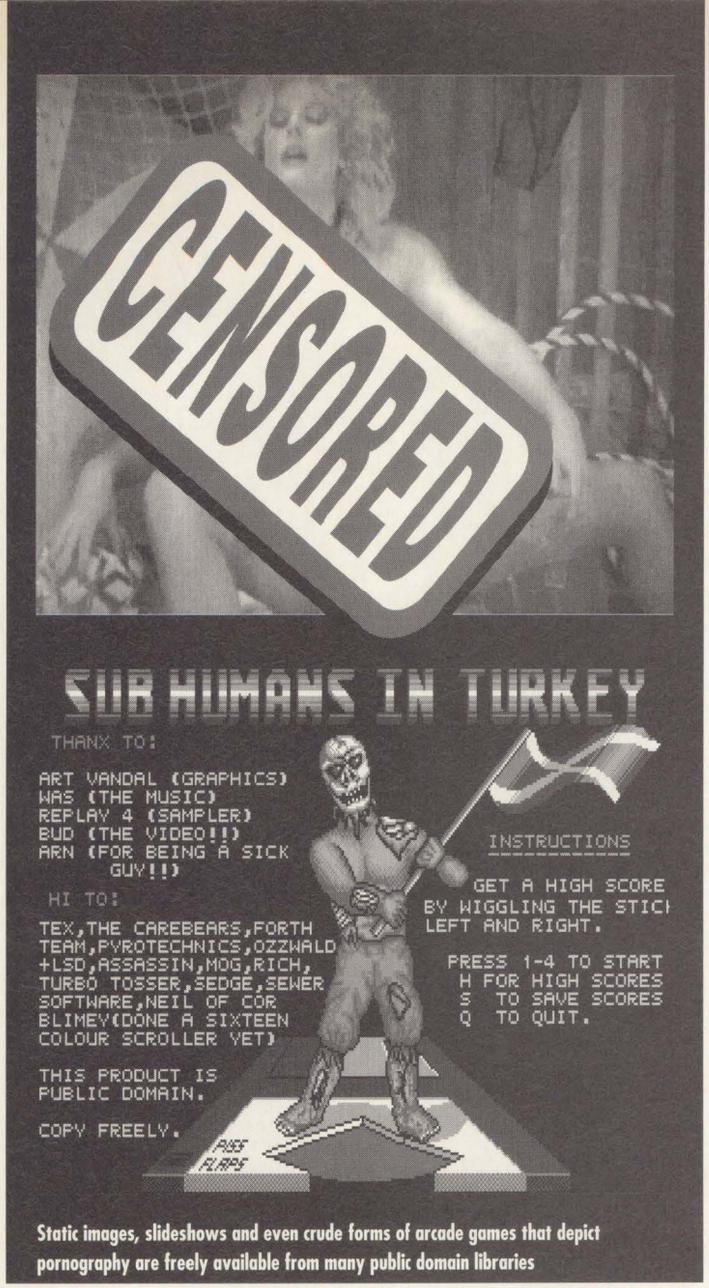
Static disks contain pictures scanned or digitised from top-shelf magazines. Frame-grabbers can also be connected to the host computer and a static image from a video recorder captured to memory and saved to disk. A simple front-end provides a slideshow routine – displaying the images one after another. These images are then either pulled in from magazines and videos, or downloaded via modem from bulletin boards in the UK, US and Europe.

Animated disks contain similar material gathered from pornographic videos via digitisers and, typically,

"The News Of The World *made such a big porn thing out of it. You get righteous indignation in the article then turn three pages and you've got adverts for Down My Throat lust lines."*
Boss of the PD library that was 'exposed' by the News of the World *for selling porn disks*

sequenced into 25 or 50 frames of hard-core sexual activity. A single disk perhaps features several sequences which are 'looped' to play for ten seconds each. Accompanying sound can either be added via sound sampling the original source or adding a custom edit. Again, such disks can be self-booted or loaded into a paint package with frame animation facilities.

Interactive disks are designed along a game


CENSORED
SUB HUMANS IN TURKEY
THANX TO:
ART VANDAL (GRAPHICS)
WAS (THE MUSIC)
REPLAY 4 (SAMPLER)
BUD (THE VIDEO!!)
ARN (FOR BEING A SICK GUY!!)
HI TO:
TEX,THE CAREBEARS,FORTH TEAM,PYROTECHNICS,OZZWALD +LSD,ASSASSIN,MOG,RICH, TURBO TOSSER,SEDGE,SEWER SOFTWARE,NEIL OF COR BLIMEY(DONE A SIXTEEN COLOUR SCROLLER YET)
THIS PRODUCT IS PUBLIC DOMAIN.
COPY FREELY.
INSTRUCTIONS
GET A HIGH SCORE BY WIGGLING THE STICK LEFT AND RIGHT.
PRESS 1-4 TO START
H FOR HIGH SCORES
S TO SAVE SCORES
Q TO QUIT.

Static images, slideshows and even crude forms of arcade games that depict pornography are freely available from many public domain libraries

Why do they sell it?

What do the libraries who do offer such disks for sale have to say for themselves? *Public Domain* spoke to the boss of a London-based PD library who wishes to remain anonymous.

"They sell really well and are among our biggest sellers. If people want this then I don't see any problem about selling them it – and until the law tells me I can't, I will. I get sick and tired of all this moralising. If someone wants to watch other people having it off and stuff then it's up to them."

So do you think you're providing a service, say, in the same way as prostitutes provide a service?

"I suppose we are yes...,"

But what about paedophilia and snuff stuff? Why are you providing these?

"We're not and I don't know who is. We're not into that, no way."

But they do exist? "Oh yeah, sure. There's an outfit in the States who advertise it regularly, then there's stuff on bulletin boards in Holland and Germany you can download. It's disgusting..."

Like what, what are we talking about?

"Like watching some guy knifing a young girl to death while he's doing it to her – you know."

format. The most primitive provide points for fast joystick waggling which speeds up the on-screen proceedings. More technically-sophisticated variants will put you in the role of a rapist or paedophile with a mission to dominate, exploit and subjugate your victims for sadistic enjoyment. Neither of these forms exclude the text-only scripts dealing with subjects where no source of pictorial material is readily available. Here we're talking about so called 'snuff' pornography where murder and torture are presented as forms of legitimate sexual activity.

The subject matter for all of these range from the so-called 'glamour' disks containing pictures of bare-breasted women to the hard-core or 'adult' titles featuring scenes of oral sex, anal intercourse, bestiality and paedophilia; scenes which the Obscenity acts would most certainly clearly define as 'obscene, indecent, offensive, disgusting and injurious to morality'. It's here, then, that the line is drawn.

So although the current laws proscribing and prohibiting the publication of pornographic materials, the Obscene Publications Acts of 1959 and 1964 don't cover computer disks – hardly surprising since they hadn't been invented when it was being drafted – they are sufficiently broad-ranging to allow for modification.

Legal definitions

Looking over the relevant statutes the following definitions are seen to apply. For the purposes of the 59 Act, an 'article' is deemed to be obscene if its effect is, 'to tend to deprave and corrupt persons who are likely...to read, see or hear the matter contained or embodied in it'. By an 'article' this statute means

"Of the 200 PD libraries operating a full-time service, half are offering adult titles."
John Dudley, PDSD

anything, 'containing matter to be read or looked at or both, any sound record, and any film or other record of a picture or pictures'. Furthermore, anyone who, 'publishes an article, distributes, circulates, sells, lets on hire, gives or lends it, or who offers for sale or for letting on hire, shall be liable to a fine and/or imprisonment not exceeding three years.'

This seems to be pretty unequivocal; with the crucial clause, '...or other record of a picture or pictures,' seeming to lend itself to the software reproduction of photographic, film or video material on which we're concentrating. It's up to the Law Lords to pronounce on this, but it seems only too easy for disks containing pornographic material to be included within this definition. At any rate a test case brought before Swindon Magistrates on April 24th will eventually clarify the matter either way. But more of this later.

Meanwhile, The Law would still appear to have

cont. from p93

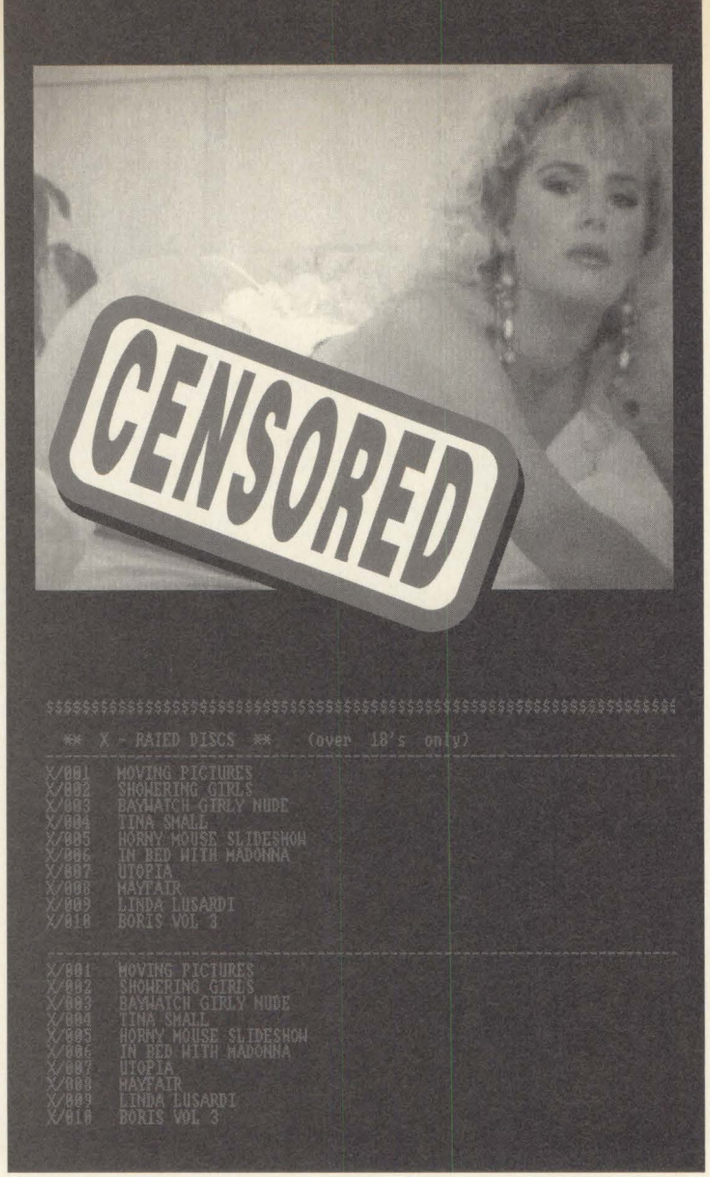
all the angles covered. The 64 Act, in amending that of 59, would seem to open up a successful prohibition even further since it specifically proscribes duplication. The 1964 Act applies to anything which is, 'intended to to be used... for the reproduction... of articles containing or embodying matter to be read, looked at or listened to, as if it were an article containing or embodying that matter'. What the Act is referring to here are media

"It is only illegal to distribute or sell obscene material – mere possession does not count."

which are 'masters' and the equipment used as a means of duplicating them. So anybody producing such disks is also on shakey ground.

Finally, and if you happen to have any disks you might feel fall foul of the legislation, both Acts specify that a person shall only be convicted of an offence under the statute if, 'he proves he had not examined the article in respect of which he is charged and had no reasonable cause to suspect that it contravened it.' Remember here that an offence is only committed with regard to the distributing, circulating, selling, hiring and giving of obscene materials – mere possession does not count. As such, it seems, you can amass a collection of every pornographic disk ever made quite legally.

So the fact that there's now hundreds of different disks out there, covering everything from gang rape to sodomy with children, from 'snuff' shots to sado-sexual torture is made even worse by the fact that they're only the cost of a floppy and a stamp away. So, not before time, The Law is finally getting round to doing something about it. But first it has to assess the scale of the task at hand.


CENSORED
$$$

hope to get these people prosecuted and to make the law stick." But nothing came of the exposé other than a dozen or so phone calls from would-be customers and a visit to the library's premises by a local CID officer.

One of the library's directors told *Public Domain*: "We have disks being sent to us the whole time and we've got a couple of lads who check 'em and if it's legal it's OK. These disks must have slipped through... it has been totally, completely utterly blown up out of all proportion. It's the tone of the article

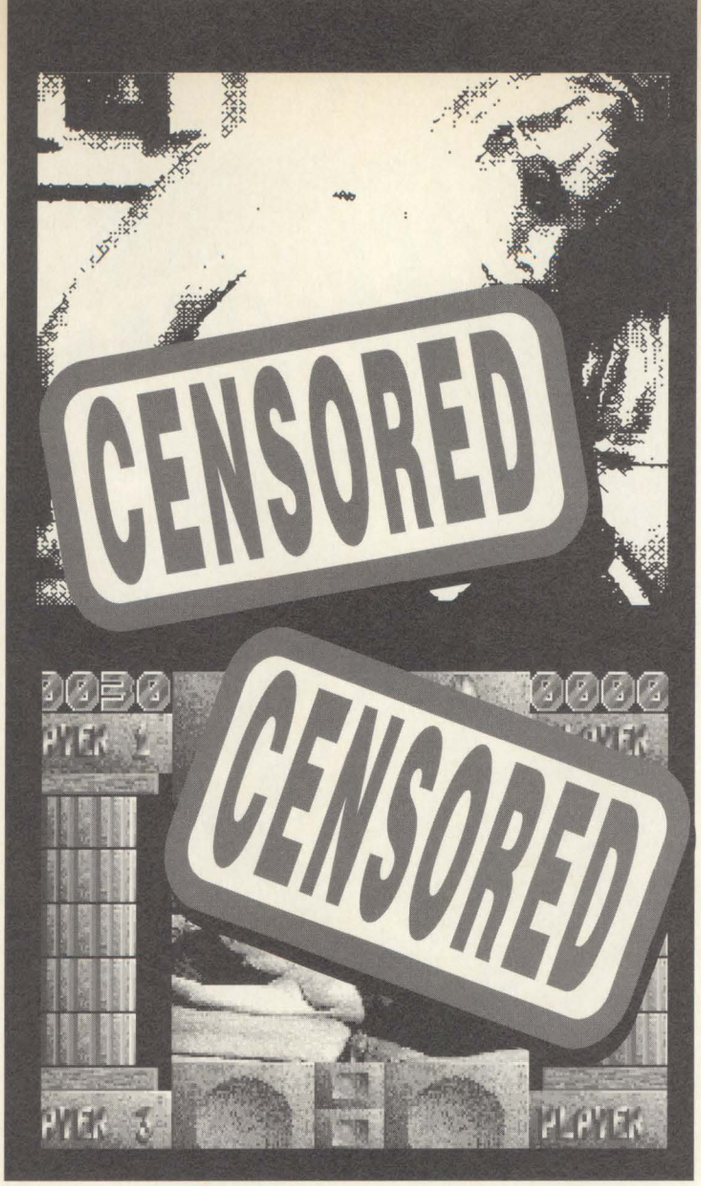
"I don't see any problem in selling (porn)... I get sick of all this moralising. If someone wants to watch other people having it off and stuff then it's up to them."
Anonymous PD library boss

that's surprising. They make such a big porn thing out of it. You get the righteous indignation in the article and then turn three pages and you've got adverts for Down My Throat lust lines."

So had the company decided to stop selling the disks after police pressure? "There's not enough business in it, that's all. We're getting out of PD anyway. As for the police, well, it's not as though they can do anything about it is it? The indecency law doesn't apply because it's not an actual picture is it? But there'll always be a demand for it... and if you wanted to start your own porn PD library you'd just ring up each of the libraries and get a disk off each of 'em... Everyone's got 'em."

So *Public Domain* then asked John Dudley of the Public Domain Standards of Distribution (PDSD) organisation whether pornographic disks of this nature were, in fact, this widely available:

"Of course...it's not being blown up at all...there's a lot more of this material appearing and it's getting worse. PD libraries may have stopped advertising Triple X titles but if if you look at their catalogue disks you'll find that with some at least 75 per cent of their entire collection consists of these."



Public domain watchdog

John Dudley's organisation is well known in the public domain world as a campaigner against pornography and regularly checks PD advertisements appearing in computer magazines; it's the nearest thing to a watchdog this particular section of the industry has got. So how many PD libraries does he think are involved in trading obscene material?

"I would say that at least a third of all public domain libraries carry adult titles and there's at least – at least – a thousand

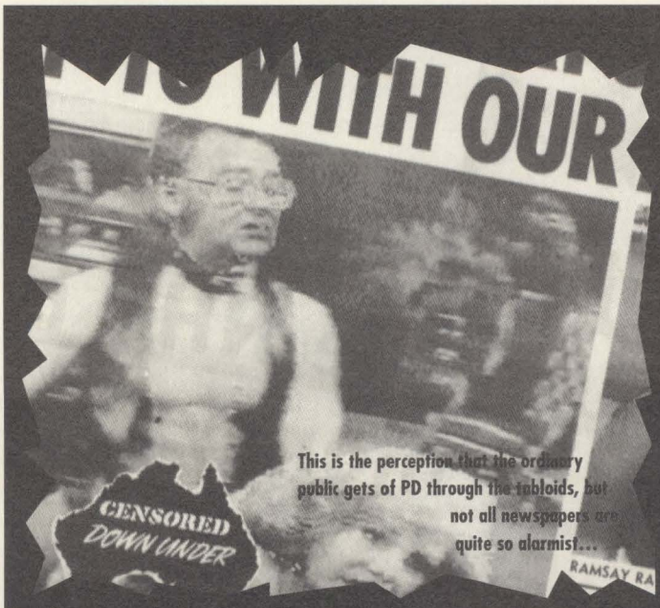
The Swindon test case – first PD porn prosecution

"I didn't realise I was breaking the law... it's nothing to do with my company, Virus Free PD." So reported Swindon's *Evening Advertiser*, quoting Vinson Pike who was raided last July. After allegedly being found in possession of dozens of hard-core disks he became the first person ever to be charged with handling pornographic software.

The police seized all of Pike's computer equipment and 156 disks, 72 of which were alleged to contain hard-core pornography. The Director of Public Prosecutions was brought in to press charges since the statutes of the 1959 and 1964 Obscene Publications Acts were not found to be sufficiently embracing. By the time you read this the verdict of the test case – held at Swindon magistrates court on April 24th – should be known. You can be sure that *Public Domain* will be reporting on its implications in our next issue.

John Dudley, of the Public Domain Standards of Distribution, has no doubts as to what he hopes the verdict of the Swindon case will be:

"If it doesn't succeed there'll be a flood of porn PD. If it does, and there's a significant fine, then a large number of people will be changing their adverts."


WITH OUR
CENSORED DOWN UNDER
This is the perception that the ordinary public gets of PD through the tabloids, but not all newspapers are quite so alarmist...
RAMSAY RA

Alarmist media hype?

Apart from the 'Neighbours Stars In Computer Bondage Sex Shocker' story revealed in the *News of the World* (referred to in the main text) *The Independent on Sunday* ran a large story under the heading 'Family computer magazines advertise hard porn for 99p' earlier this year. Since this particular newspaper is not known for its alarmist, sensationalist reporting, the story deserves some consideration.

Manchester police were reported as seizing more than 1,200 pornographic disks in 1991. A spokesman for the force commented, "Many parents would be surprised to learn that pornography was available on disk and horrified that it could cost as little as 99p. The disks are not even labelled as pornographic and they look exactly like any other disk."

A West Midlands Police officer was also quoted as saying, "Those who produce these disks are not the barons of porn. What started off as an innocent technical exercise has become an expanding and sinister business."

The Independent on Sunday piece is in no way alarmist and supports our own findings in this area, laying the blame firmly at the doors of unscrupulous PD libraries and magazines which carry advertising for such libraries offering porn for sale.

cont. on p96

cont. from p95

different disks from which to choose. It's ruining the whole business".

And how many PD libraries are there trading in the UK?

"Of the 200 'registered' libraries – those operating a full-time service and not just a few hours in the bedroom each evening – half are offering adult titles. All you have to is send off for their catalogue disks and order the disk you want."

Dudley is convinced that in the absence of a legal precedent it's the responsibility of the PD libraries to put their houses in order, a view shared by Steve Colbeck of 17-Bit Software.

"It's down to the libraries to sort it out for themselves... because otherwise nothing seems to happen, nobody gets their fingers burnt for selling porn or pirated software or anything. But the PD libraries do seem to have cleaned up their acts to the extent where porn's not advertised as much as it used to be. I don't think it's as bad as it used to be, though and I've seen every adult demo done in the last three years. We haven't had many sent in at all recently."

But Dudley is keen to point out that the problem is not going away and too few public domain libraries are willing to help rid public domain of pornography. The problem as he sees it is a financial one.

"Hard-core pornography is a good earner for them... so what we have to do is give them a financial incentive to stop carrying Triple X disks."

With this end in mind, the PDSD recently wrote to all the companies offering adult titles with an incentive to cease carrying pornographic disks. Of the 100 only 11 replied.

"What we try to do is provide a standard... we say to libraries who advertise Triple X stuff, 'if you don't stop it we'll pass on your names to the police database, but if you're willing to stop it then you can benefit from joining our club; we can get disks cheaper than anyone, anywhere in the country'."

"I despise people who produce this form of pornography. I hope to get them prosecuted and make the law stick."
Emma Nicholson, Conservative MP

So how much could a PD library save by joining up with PDSD? "I reckon we could save the average library £300-400 a month in disk costs."

Steve Colbeck of 17-Bit Software thinks he has the answer why so few libraries responded. "Most people can't see what all the fuss is about. As far as the glamour disk stuff is concerned I can't really see the problem. But we've had to stop it ourselves because we've had so many complaints from people – some find it offensive while others just laugh it off".

So is the PDSD's John Dudley being too puritanical in his quest? How does he define obscene material? "It's top-shelf magazine material... that's where *we* draw the line. But it goes beyond that".

In the face of a poor response from the libraries what else can he do?

"Well if we find disks on offer in catalogue disks and adverts that are obscene – containing child sex, say – then the police can act. If not, then what we do is alert the local post office because as carriers they aren't allowed to provide carriage for offensive material. Since PD libraries rely on the post for trading this prevents them."

Organised distribution

What's clear is that a lot of the more extreme material comes from much wider organised circles, with public domain being just one of its means of distribution and circulation. Steve Colbeck again:

"They come from collectors, not libraries as such. Most of it comes from clubs where you become a member and after a while – after you've established trust – they'll let you have it. It's in the form of demos, most of which come from Europe. The last one I saw was an animal compilation, four looped animations of a guy bonking a dog for a quid. I just threw it in the bin."

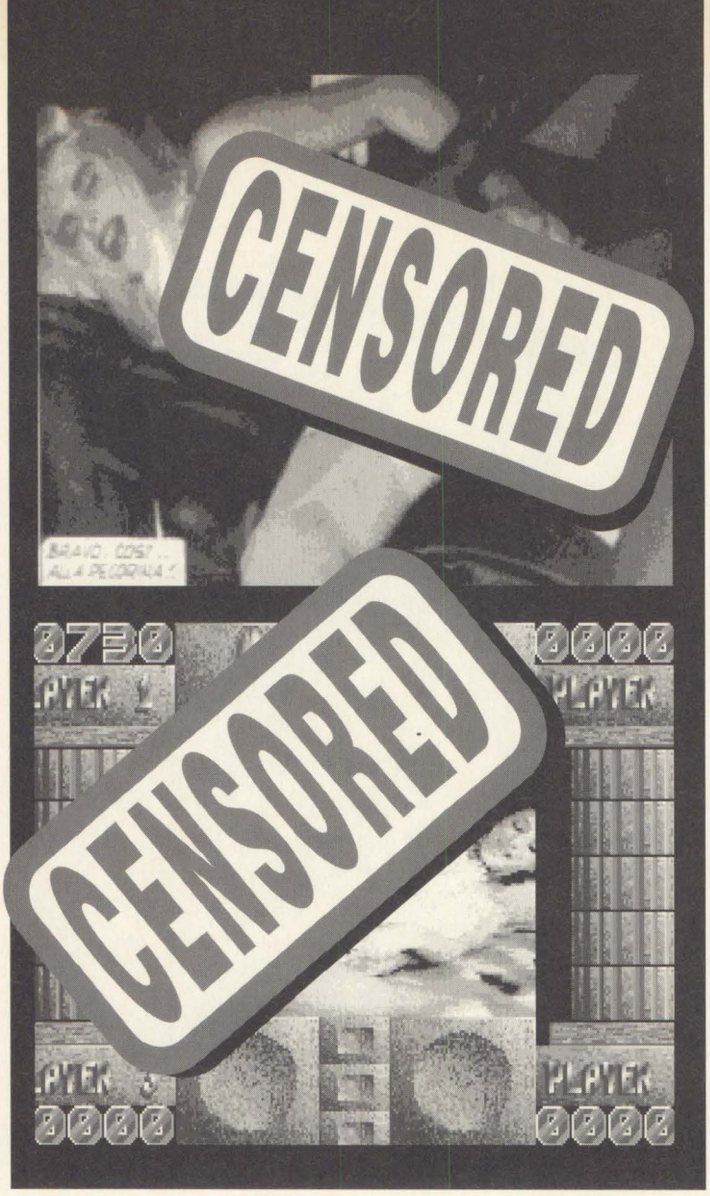
John Dudley is also convinced there's an organised side to the trafficking but admits a lot of it is home grown too.

"Most of it comes in from the USA. One American company got in touch with every PD library which had advertised in *Amiga Format* magazine offering them child sex disks for a dollar each. Otherwise it's just local Amiga crews trying to outdo each other. The biggest problem is on the Amiga. On the PC and ST there's not as much because the Amiga is more powerful graphically and can animate more easily."

So does he think porn in the public domain will ever disappear?

"It's difficult to stop it – we just have to try and slow it down. What we can do is to provide a standard, and give a financial incentive, but the magazines have their part to play too. They have to stop carrying the adverts. Eventually I think we're going to be seeing new legislation, a new Act. I'm in regular contact with the Obscene Publication people at Scotland Yard and that's the feeling I'm getting."

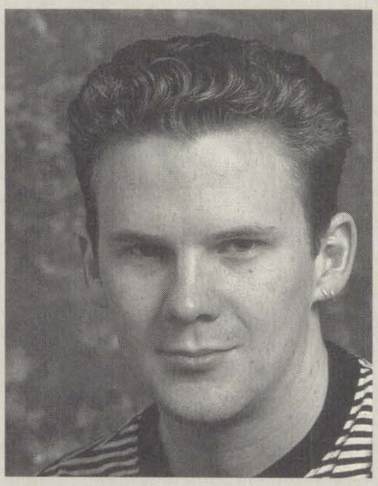
So if the Swindon test case does not lleagally force libraries to stop supplying porn on disks it's up to responsible PD users to make sure that its distribution is brought to a halt. PD



The *Public Domain* view

"Most of the images portrayed on pornographic disks are available elsewhere, and indeed have been taken from other sources such as blue movies and top-shelf magazines. Some of them are legal in those formats, others are not.

But the point is that there are restrictions on who's able to buy this material, whereas public domain disks are freely available to anybody capable of walking into a Post Office and buying a Postal Order. Libraries may classify their disks as 'Triple X-rated' or 'For over 18s only', but it's almost impossible to check the ages of the prospective buyers. There's never any face-to-face contact with the customer and most transactions are carried out by post. It's easy for a minor to send off an order to a PD library and in a couple of days' time for the disks to arrive on the doormat, with no questions asked and no hassles.



Adam Waring, Editor of *Public Domain*: "Pornography has no place in the public domain where children can get hold of it so easily."

Pornography has no place in the public domain. Freely available software should be exactly that; available to anybody without fear of what it may contain. Pornography disks can only do damage to PD's image."

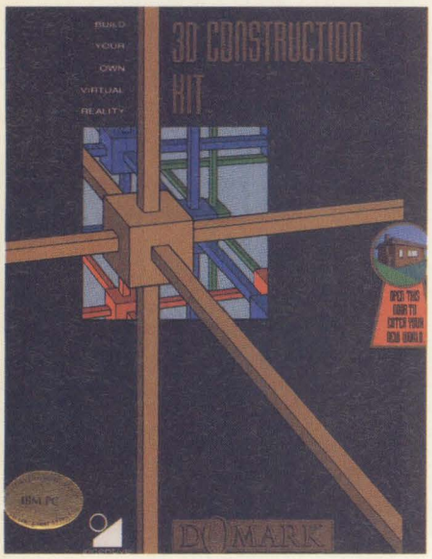
Adam Waring, Editor

PUBLIC DOMAIN

MAIL ORDER

Buy with confidence from *Public Domain* magazine.
We have some great goodies on offer at superb discounts, delivered direct to your door. Simply use the FREEPOST order form below or call 0458 74011 with your Access or Visa card handy. *(Why not take a subscription at the same time, see page 97.)*

one 0458 74011... Phone 0458 74011... Phone 0458 74011... Phone 0458 74011... Phone 0458 74011...



PC 3D construction Kit

Price £39.99 inc P&P
Order No PD21P

Create your own virtual reality on your PC with Domark's amazing *3D Construction Kit*. This comprehensive package let's you build entire worlds for you to explore.

The package has been designed by the Incentive programming team which has used its Freescape 3D graphics system in a number of popular games. Everything that you need to do to create the worlds you can create is achieved by using simple icon and mouse-driven controls which don't require any programming knowledge at all.

Not only can you create your own worlds, you can make your own 3D games to release into the public domain, along the lines of *Driller* and *Total Eclipse* that Incentive has created in the past. Don't be put off by the task – using the simple controls and the many graphic examples that come with the package, you can get things running quickly. And to help you on your way there's even a short tutorial video included as well to take you through the program.

So go on, make that leap to virtual reality!

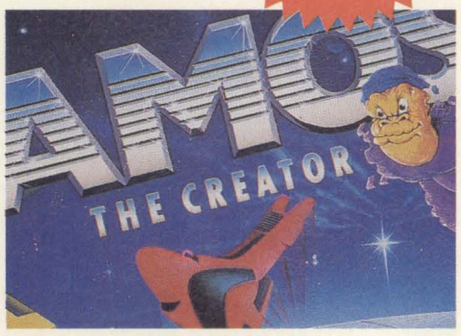
Save £10

Amiga AMOS

Price £39.99 inc P&P
Order No PD21A

Save £10

They call it the Creator! A superb easy-to-use programming language fior creating games, educational software – almost anything! Comes complete with *AMOS Sprites 600*. The perfect way to launch your career as a PD author!



ST STOS

Price £23.99 inc P&P
Order No PD21S

Save £6

You don't need to be an experienced programmer to write ST software that'll set the PD world alight. With *STOS*, the game-creator, you can produce exciting games quickly and easily (and now, thanks to this great offer, even more cheaply!)

Name.....

Address.....

.....

.....

.....

Postcode.....

Telephone.....

No stamp required if posted in the UK, Channel Islands or the Isle of Man

Quantity	Modem	Order No	Price
Total			

Method of payment – *please circle*

Access Visa Cheque PO

Credit Card Number

.....

Expiry date.....

Please make cheques payable to
Future Publishing Limited
Send form to: Public Domain Mail Order
Future Publishing Ltd, Freepost,
Somerton, Somerset TA11 7BR

PD MAIL ORDER

Next Month

That's it for another month, but don't worry, we'll be back before you know it with another issue bursting at the staples with all that's happening in PD.

But before we go on to next month, you can help create the future of the magazine. If you haven't already done so, turn to page 80 and get that questionnaire form filled out. No buts, it's an order, for by adding your input you'll be contributing towards a magazine that's geared towards people like you. Don't delay, do it today!

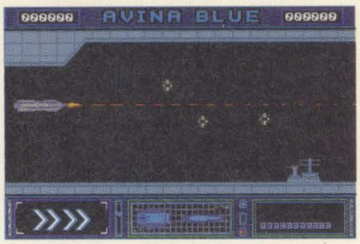
We have quite an issue lined up for you next month. For a start, we have a major feature on copyright and how it affects the public domain. Just how legitimate are all those Madonna soundtracks, Simpsons demos and *Terminator 2* slideshows? Do they breach the guidelines laid down by the law? *Public Domain* will reveal all.

Do you fancy writing the programs that appear in the public domain tomorrow? Then check out our programming feature. It covers languages that will enable you to create your own digital masterpieces, and all, of course, with programs that are available from the usual PD sources.

Could this digitised image from *Terminator 2* be illegal? Find out next month

Plus there'll be all the regulars too, including Comms, Magnetic Media, Problem Solved and Public Eye, as well as the reviews sections that offer the best buying advice available anywhere. Don't miss it!

***Public Domain* issue 8 is on sale 4th June. Start queueing now!**



Could you become the next Jeff Minter or the creator of Budgie brilliance? Well, if you read next month's feature on programming you can see what's involved...

Contributors: Jerry Glenwright, Maff Evans, Nial Grimes, Adrian Slater, Peter Wright
Art Help (thanks everybody): Ollie Alderton, Maryanne Booth, Amanda Cook, Kevin Hibbert, Julia O'Shea
Photography: Ashton James ● Illustration: Jolyon Webb, Ian Ellery

ADVERTISERS' INDEX

Deja Vu Software	32	Rust PD	44
Essex Computer Systems	44	Sharesense	26-27
Livewire PD	44	Silica Systems	47,81
Omega Projects	13	Softcell	7
PC Shareware Games	44	Solent Software	32
Prodisk PD	32	Startronics	32
Robosoft Services	32	Testware	100
		Ultimate PD	99
		We Serve	8

Index

AMIGA

		Page No
The Adventures Of Alice	D	55
AmigaGUIDE	H&E	68
CAT Computer Demo	D	56
Contact Has Been Made	D	57
Dead Beat Volume One	D	54
Deskbench	F	75
Doody	G	39
Easter Island Animation	D	57
Enable/Write	B&A	89
Garloween	D	53
Intensive Frequency	D	57
Jack's Blackjack	G	45
Journal	B&A	82
Layman's Cookbook	H&E	68
Microbes	G	43
Multiplayer 1.71	P&U	19
Nag	B&A	89
NComm 2.0	P&U	23
Paintbox	H&E	62
Radbench	P&U	25
Scenery	F	36
Serene III	G	45
Term 2.0	P&U	24
Too Much 3D	D	56
Total Concepts: Dinosaurs	H&E	60
TextPlus	B&A	84
Unit	B&A	86
Ultimate Bootblock Collection	P&U	28
Windowsbench	F	74

PC

Bolo Adventures	G	42
Boxer	B&A	83
Cosmo's Cosmic Adventure	G	40
Canary	P&U	28
Do-Spell	B&A	86
Ed	B&A	89
Elf-Tree	P&U	18
Flexibak Plus 2.0	P&U	21
Fractint	F	35
Icontext	B&A	87
Lugnut City	H&E	64
Magic Crayons	H&E	68
MenuDirect Gold 3.00	F	77
The Newstyle Demo	D	52
Oilcap	G	45
The Panda Game	H&E	68
PowerMenu 5.0	F	77
TidBit	B&A	88
Treacle Utilities	P&U	22
Turf Accountant	H&E	64
Word Rescue	H&E	61

ST

Cal47	B&A	89
California Raisins	D	58
Clodhopper	G	43
DosAcc 2.8	P&U	22
Early Learning Maths	H&E	63
Fractal Chaos	F	37
Gemini 1.2	F	76
Jiggers	G	38
KAOSDesk	F	76
Lobotomy Invaders	G	45
Oh Well, That's Life	D	54
Pagestream 2.1	B&A	88
Pro-Ed	B&A	88
ProbeST	P&U	28
STOS Typing Tutor	H&E	62
ST Tools	P&U	19
Undersoft Collection	H&E	67
VDOS ProQueue	P&U	25
Violence	G	41
VirusTool	P&U	25
Word400	B&A	57
Wuzzlers	H&E	90

KEY

B&A Business & Applications
D Demos
F Feature
H&E Home & Education
G Games
P&U Programming & Utilities

Future PUBLISHING

This magazine comes from Future Publishing, a company founded just six years ago, but which now sells more computer magazines than any other publisher in Britain. We offer:

Better advice. Our titles are packed with tips, suggestions and explanatory features, written by the best in the business.

Stronger reviews. We have a cast-iron policy of editorial independence, and our reviews give clear buying recommendations.

Clearer design. You need solid information fast. So our designers highlight key elements by using charts, diagrams, summary boxes, annotated photographs etc.

Greater relevance. At Future, editors operate under two golden rules:
• Understand your readers' needs.
• Satisfy them.

More reader interaction. We draw strongly on readers' contributions, resulting in the liveliest letters pages and the best reader tips. We always like to know what are readers think of our magazines, whether it is good or bad, so that we can make improvements wherever possible. Buying one of our magazines is like joining a nationwide user group.

Better value for money. More pages, better quality: magazines you can trust.

Home of Britain's finest computer magazines.
Public Domain • Amstrad Action • Amiga Format • ST Format Your Sinclair • Commodore Format • Sega Power • Total! Amiga Power • Amiga Shopper • PC Format PCW Plus • PC Plus • PC Answers

© 1992 Future Publishing Ltd. No part of this magazine may be reproduced in any form without written permission.

AMIGA ONLY ULTIMATE PD ONLY 99P PER

★ DEMO DISKS ★

D264 - Shark Animation (1Meg)
D278 - Madonna Hanky Panky (P)
D240 - At The Movies (2 Meg)
D279 - More Aerotoons (1Meg) (P)
D280 - Amy V.S. Walker Anim (1 Meg)
D294 - Life Of Brian (P) (2 disks)
D297 - Anti Lemmin Demo (2 Meg) (2 disks)
D298 - Robocop Animation (1 Meg) (P)
D300 - Silents: Ice Demo
D254 - Virtual World (1 Meg)
D150 - Windsurfer Animation (P)
D315 - Mr Potato Head (1 Meg) (P)
D316 - Creature Comforts Demo
D318 - 3D Pinball Animation (1 Meg) (P)
D001 - Walker 1 (1 Meg)
D002 - Walker 2 (1 Meg)
D003 - Walker 3 (1 Meg)
D004 - Cool Cougar (1 Meg)
D012 - Rebels Megademo
D014 - Space Ace Demo
D023 - Stealthy 2 Anim (1 Meg)
D028 - Budbrain Mega Demo (2 disks)
D047 - RAF Megademo (2 disks)
D045 - Arse Wipe Advert
D059 - Red Sector Megademo (2 disks)
D062 - Red Sector Cebit 90
D077 - Good Morning Vietnam
D088 - Silents Megademo
D095 - Outsiders Acid Demo
D115 - Vision Mega Demo 4
D127 - Chubby Brown
D134 - Garfield Demo
D147 - Neighbours Slideshow
D148 - Viz Slideshow
D151 - Robocop 2 Slideshow
D153 - Epic Game Demo (1 Meg)
D158 - Operation Vark
D160 - Exodus Real 3D (1 Meg)
D163 - Probe Sequence
D164 - Slycath Amazing Demo Comp
D168 - Horizon Mega Demo
D169 - Budbrain Mega Demo 2
D176 - Jasper Carrot Demo
D184 - Dragons Lair 2 Demo
D185 Wrath Of The Demon Demo
D187 - Batman The Movie Demo
D251 - Decaying Paradise (1 Meg)
D264 - Hardwired (1 Meg)
D225 - Phenomena Enigma (1 Meg)
D231 - KGB Mega Demo (2 disks - 1Meg)
D237 - Silents - Global Trash
D240 - Vic Reeves Demo (2 disks)
D241 - Ray Of Hope (2 disks)
D247 - DMob It's A Lame Demo
D284 - Odyssey - Alcatraz (5 disks)
D312 - Anarchy - Seeing Is Believing
D325 - Hynautic Hammer
D327 - Greatest Demos Vol 1
D330 - Greatest Demos Vol 2
D333 - Greatest Demos Vol 3
D345 - It Came From The Desert Demo
D346 - Harry Meets A ST Owner
D347 - Shuttle Cock Animation
D354 - NASA Slideshow
D357 - KGB Mega Demo 2
D359 - Kefrens Guardian Dragon
D370 - Terminator 2 Slide Show
D379 - Navy Seals SlideShow
D388 - Track Ro Vectra

★ MUSIC DISKS ★

M001 - Seriously Good Music 1
M002 - Seriously Good Music 2
M003 - Seriously Good Music 3
M011 - DMOB Music 2
M012 - DMOB Music 4 (2 disks)
M014 - Rebel Megablast
M016 - Micromix 2
M022 - Amiga Charts Mix 3
M029 - D-Mob Music 3
M023 - Titan Trax 1
M026 - Amiga Charts Mix 5
M029 - D-MOB Music 3
M034 - Arnie Swarzenaggar Total Remix (2 disks)
M035 - Digital Concert 2
M036 - Digital Concert 3
M037 - Digital Concert 4
M038 - Digital Concert 5
M039 - Digital Concert 6
M040 - RAF Megamix 1
M042 - Bat Dance Remix
M049 - Ben Elton (xxx)
M057 - DMOB Music 1
M081 - Flash 2 (disks)
M102 - Debbie Gibson's Electric Youth (2 disks)
M114 - Betty Boo - Doing The Do
M121 - Band Aid 11 (2 disks)
M122 - RAF Beat Thiz 1
M123 - RAF Beat Thiz 2
M124 - RAF Beat Thiz 3
M125 - RAF Megamix 2 (2 disks)
M126 - Amiga Charts Mix 2
M127 - Amiga Charts Mix 6
M134 - Miami Vice Theme (4 disks)
M136 - Laurel And Hardy (2 disks)
M141 - JM Jarre - Definitive
M143 - CD Player Demo (1 Meg)
M144 - Flash! Queen (2)
M159 - Techotronic Remix
M161 - Crusaders Bacteria
M183 - ScooPex Beast Sonix
M157 - Digital Concert 5 (V1)
M151 - Crusaders: Genesis
M132 - Depeche Mode Mix Disk
M156 - Seal Crazy Remix (1 Meg)
M185 - I Think We're Alone
M186 - Everybody Dance Now
M187 - Doing The Do (Remix)
M189 - Amazing Tunes (1 Meg) (3 disks)
M190 - Move Any Mountain
M192 - Charly Remix
M193 - What Can You Do For Me?
M194 - Bruno Music Box (2 disks)
M195 - Manic Raves (2 disks)
M199 - Star Trek Theme
M201 - Journey Into Sound
M203 - Looney Tunes
M205 - Vogue CD Player
M206 - Flashing Bytes
M208 - Remember The Time (Remix)
M209 - Enjoy Live
M211 - Rave Around The Clock
M212 - Raver's Delight
M216 - Genesis
M217 - Dirty Digit Songs
M225 - Phil Collins
M226 - The Wall By Pink Floyd (6 disks)
M229 - Desire Lego Land
M230 - Manic Raves Remix
M234 - 808 State Remix
M241 - The Equiliser
M246 - Music Dream 2
M247 - Four Seasons
M248 - Flash Team Music
M249 - Move Any Mountain
M251 - Roger Ramjet
M253 - Crazy Looney Tunes
M260 - Old Soul Remix
M265 - Stand By Me
M269 - My Girl
M271 - Simply Red-Stars (2 disks)

★ UTILITIES ★

U001 - Sound Tracker Collection (3 disks)
U012 - Mega Utilities (175 utilities)
U024 - Sid Cli Utility
U039 - Amibase V3.76
U042 - Front Disk
U043 - Kim Database
U059 - Clip Art
U062 - Ultimate PD Copiers + Virus Killers Disk
U069 - Demolisher Utilities
U071 - D-Copy
U073 - Hard Disk Utilities
U074 - Easy Back Up And View 80
U075 - Pascal C Compiler
U078 - A500 + Utilities (For The A500 +only)
U080 - Turbotitle
U081 - S-Movie
U082 - Graphs
U083 - Drawmap V3.1
U085 - RBase II V5
U086 - Text Engine V3
U025 - Sid V1 6
U091 - Opti Utilities 2
U093 - PCQ Pascal
U094 - M.U.K V2.1
U095 - Zerovirus + Bootx V4.30
U096 - ST Emulator
U098 - Amibase V3 6.7
U099 - M-CAD
U101 - C Manual V2.00
U103 - Iconmania
U104 - Messysid 11
U105 - Insanity Tools
U106 - Imploder V4.0
U107 - N-Comm V1.921
U108 - Amiga MCAD
U109 - D Paint Cartoon Brushes
U111 - D Paint Font Disks (4 disks)
U112 - Ham Radio Utilities (5 disks)
U113 - Programming Disk (2 disks)
U117 - Sound Applications (2 disks)
U119 - Video Applications (2 disks)
U128 - The Comms Disk
U129 - D- Paint Clip Art (2 disks)
U130 - Video Graphics (4 disks)
U132 - Genealogy (1 Meg)
U066 - C-Light (1 Meg)
U135 - New Super Killers
U138 - Electrocad V1.4 Demo
U139 - Spectra Paint V3.0
U140 - Language Tutor
U145 - Database Master 2.0
U146 - Dynamite Brush Fonts
U147 - Textplus Word Processor
U149 - Med V3.10
U151 - Dice V2.06A
U152 - Pagesetter Clip Art (8 disks)
U154 - Night Flyers Utilities IV
U156 - Vector ball Editor (1 Meg)
U157 - Antivirus V3.14
U158 - Kids Paint
U159 - Text Engine
U160 - Windows Bench
U161 - PDS Utilities No1 Printing Utilities
U163 - NComme V1, 921
U164 - Work Bench 2+ Work Station
U165 - Video Screens
U167 - Cursor Basic Compiler
U168 - JRComm V1.02
U171 - Super C. Commands
U172 - P. Suite V1.4
U173 - The Ripper Guide
U174 - Jam Ripper V1.7 Jam Cracker V1
U175 - Beatrix Potter Clip Art
U177 - Thief Sound Ripper V3.0
U178 - Faulty Towers Samples
U179 - News Flash 21
U183 - Swag No 4: Fractals
U184 - Little Bench
U185 - Plotting + Graphics: Plot-X-Y

★ GAMES ★

U186 - Draw Map V3.1
G001 - Star Trek 3 (2 disks)
G006 - Breakout Construction Kit
G008 - Board Games (Monopoly etc)
G014 - Buck Rogers
G015 - Star Trek (3 disks, 1 Meg)
G016 - Tennis (1 Meg)
G020 - Train Set
G024 - Pipeline
G026 - Treasure Hunt
G031 - Drip!
G033 - Jeopard (1 Meg)
G034 - Dragon Cave
G037 - Seven Tiles
G038 - Pom Pom Gunner
G043 - Mental Image Games Disk
G056 - Strategy Games
G057 - Simpsons Game
G059 - Bionix II (1 Meg)
G062 - Atic Atac (1 Meg)
G065 - Battle Pong (1 Meg)
G066 - Frantic Freddie
G068 - Air Ace II
G069 - Down Hill Challenge
G070 - Llamatron
G071 - Sky Flyer
G074 - Revenge Of Mutant Camels
G075 - Jet man
G077 - Asteroids
G078 - Twintris
G079 - Card Games
G080 - Battle Cards
G081 - Mind Games 21
G083 - Sword Of The Warlock
G084 - Solitaire
G086 - Scramble
G087 - Dungeon On Nadroj
G088 - Royal Boulder Dash
G090 - Sub Attack
G092 - Mega Ball
G093 - Air Warrior
G095 - Super Skoda Challenge

★ SPECIAL OFFERS ★

UNBRANDED BLANK DISKS 38p EACH

DISK BOXES

3.5".....Cap 10.....99p
3.5".....Cap 40.....£4.00
3.5" .....Cap 80.....£6.50

Mouse Mat.....£2.99
1000 Disk Labels...£9.99
512K Memory Upgrades
With Clock £32.50
Without Clock.....£28.50

We also stock Fred Fish disks 1-596 & T-Bag 1-59

Please make cheques and postal orders payable to: Ultimate PD.

The Ultimate PD Mag - Catalogue disk is available for 75p or free with orders of 2 disks or more.

Access

PLEASE SEND ORDERS TO:

ULTIMATE PD
44 FESTINIOG ROAD,
GABALFA, CARDIFF CF4 2QS,
WALES

All disks are 99p each, some titles are on more than 1 disk.

Please add 50p p&p to the total order. European orders please add 50p per disk and the rest of the world add 75p per disk

VISA

Testware (UK) Ltd.

The people you can trust. Fast and friendly service.
Over 20,000 customers can't be wrong!

ONLY £2.50 per disc! (no extra for 3.5"). Fully inclusive!
Minimum order: 2 discs or £5. (Overseas, please add £2.00 per order)
No membership fee, no complicated price scale, no hidden extras!
PC Shareware catalogue FREE on request.

Tel: 0423 886415(anytime) /0423 880471(office hours).

Quality Shareware (PC only) with easy to use menus or on disc help to get you started. Shareware programs require separate payment to the author if found useful. Number of discs is in brackets after the name. HD=requires hard disc. Please remember to state disc size and to total up the number of discs.

NEW RELEASES

Here are a few of the new titles we have received recently. We have hundreds more, so if you don't see something listed, 'phone us to see if we have it.

EDNA'S COOKBOOK (1) Very good recipe system
FRED'S RECIPES FOR EDNA'S COOKBOOK (4)(HD)
DOMINATION (1) (VGA) Strategy board game
FACING THE EMPIRE (1) 1-player intersteller conflict
GO (1) Ancient Oriental Board Game
IMAGE ALCHEMY (2) Graphics file conversion
MARIO BROTHERS (1)(VGA) VGA arcade action
MENU DIRECT GOLD (2)(HD) File management & menus
OLIVE ACCOUNTS CONTROLLER (2)(HD) Accounts pgm.
PC-WRITE STANDARD (4) Latest version of PC-WRITE
PCX SUPERSHOW (1) New PCX-SHOW with Soundblaster support for superb demos and slide shows.
SHARK ATTACK (1) Good CGA arcade game
SUPERSCAPE VIRTUAL REALITY (1)(VGA) V. R. demo
THREE BALL JUGGLER (1) (EGA) Teaches you to juggle!
VGA DISPLAYS II (1) More dazzling VGA graphics!
WINARC (1) Windows 3 archiving program
WIN GIF(1) GIF & PCX file viewer for Windows
WINEDIT (1) Text editor for Windows 3
TRIVIA QUIZ (1) New trivia game

WORD PROCESSING

PC TYPE 4 (4 discs)(HD) Latest version from Buttonware.
GALAXY LITE (1) Wordstar compatible/drop down menus.
THESAUR PLUS (1) (HD) Good pop-up, use with your w/p.
STYLE CHECKERS (1) Checks the readability of text.
SIGNSMITH (1) Create letterheads/posters/logos/pics.
LQ (1) Dot Matrix print enhancer, fonts, print-spooler etc.

DATABASE MANAGEMENT

PC FILE 5 (3 discs) (HD) Powerful D/Base III compatible.
FILE EXPRESS v5(4) Powerful, but easy to use.
FREEFILE (1) Easy to learn menu-driven database.
ZEPHYR (2) (HD) Easy to use fully relational D/Base.
WAMPUM (1) Fast, fully relational. Great Value!
CLUB (1) UK club membership program.

INTEGRATED PROGRAMS

ALT (1) (HD) Editor/ calculator/ address book/ calendar etc.
FRIDAY (1) (HD) Super pop-up Organiser/ diary/ notebook.
ACTIVE LIFE FOR DOS (2) Calendar, appointments, dialler.

PAINTING/DRAWING

FRACTAL GRAFICS (1 disc) PCX drawing using Fractals.
VGA PAINT (1) Excellent VGA graphics/drawing program.
DESKTOP PAINT (1) (HD) (EGA or Hercules) Superb B/W.

DESIGN

CHARTS UNLIMITED (1 disc)Flowcharts/electrical/Gantt etc
EASYDRAW (1) Technical drawing, flowcharts, diagrams.
DRAFT CHOICE (1) Accurate, easy to use CAD program.
PC-DRAFT II (1) Full A4 150 dots per inch drawings.

GRAPHICS UTILITIES

GRAPHIC WORKSHOP (2 discs) (HD) Converts/scales/ views/dithers and prints many picture formats.
PCX-SHOW (1)(HD)(EGA) Professional presentations.

SPREADSHEETS

AS-EASY-AS (1 disc) Famous 123-style spreadsheet.
TUTOR 1-2-3 (1) Interactive tutorial for 123 beginners.

CLIP ART

OFFICE IMAGES (1 disc) Light hearted, choose PCX or MAC.
COOPER SET (2) 1500 pictures. Choose: PCX/IMG/MAC.
DECORATIVE DROPCAP (1) Decorative capitals in PCX /IMG

BUSINESS

MARKETEER (2 discs)(HD) Complete sales system.
INVOICE MASTER (1) (HD) UK invoicing system.
EASY STOCK MANAGER (1) UK Stock control.

FINANCE

FREEWAY CASHBOOK (3 discs) Profit & loss/VAT/bank rec.
PAGE FINANCE CONTROL (2)(HD) Leading finance package
FREEWAY LEDGERMASTER (4) Major integrated system.
PAGE CHEQUEBOOK (1) Home finance system.

DOS UTILITIES

MCAFFEE VIRUS TOOLS (2 discs) Anti-virus programs.
POWERMENU 6 (2) (HD) Friendly menus, easier than DOS.
AUTOMENU (1) (HD) Run programs with single keystrokes.
PC DOS HELP (1) Highly rated DOS tutor/detailed refs.
PKZIP/PKUNZIP (1) Fast and efficient archiving program.
PKZMENU & PKLITE (1) Two utilities for PKZIP.
4DOS 4 (2) Latest version of the alternative to DOS.

PROGRAMMING

C TUTOR (2 discs) Excellent tutorial with examples.
PERSONAL C COMPILER (1) Best shareware compiler?
A86/D86 (1) Fast Assembler/debugger.
8086 TUTOR (1) Intro to Assembly language programming.
TURBO PASCAL TUTOR (2) Very good tutorial.

HOBBIES & INTERESTS

FAMILY TREE (1 disc) Prints charts or book with index.
BROTHER'S KEEPER (4) Friendly. Prints sideways charts.
SOLVER (1) Crossword, anagram & word square solver.
FOOTBALL FORECAST (1) Popular pools/fixed odds system.
PUNTER'S PAL (1) UK Horse racing analysis program.

GAMES

GOAL (1) International soccer management.
FORD SIMULATOR II (2) (CGA) Test drive a Ford car!
DRACULA IN LONDON (1)(CGA)Good graphic adventure.
SLEUTH/HANGMAN (1) Find the murderer!
BACKGAMMON (1) Plus Cribbage & Draughts. Very good!
POWERCHESS (1) Super chess game. Works on all graphics
PHAROAH'S TOMB (1) (CGA) Raiders of the Lost Tomb.

EGA/VGA GAMES

BOLO ADVENTURES (1)Forty levels, superb graphics.
TRIBOLO (1) 3-way Othello game, different each time
GOLDHUNT (1) Avoid the monsters and the sensors.
BATTLE OF ATLANTIS (1) War game with floods etc.
CRUSHER (1) Explore a cavern of 25 different rooms.
MINDCUBE (1) Strategy arcade game.
VGA SHOOTING GALLERY (1 disc) 7 shooting competitions.
JUMPMAN LIVES (1) Up to four player arcade game.
DARK AGES (1)(286) Supports AdLib/Sound Blaster cards.
COMMANDER KEEN I (1) One of the best ever PC games!
COMMANDER KEEN II (2) (HD) "Goodbye Galaxy."
COMMANDER KEEN III (1) (HD) "Aliens Ate My Baby Sitter."
KUNG FU LOUIE (3) Excellent Martial Arts game.

EARLY LEARNING

HOORAY FOR HENRIETTA (1 disc) Maths for 5-12 year olds.
HENRIETTA'S BOOK OF SPELLS (1) Spelling for age 7-14.
AMY'S FIRST PRIMER (1) Pre-school educational games.
PC LEARNING GAMES (4)(EGA) Maths, Words etc (2-8yrs)
ANDY'S WORD GAMES (1) Improve spelling & grammar.
FUNNELS & BUCKETS (1) Games for age 2 to 10.
MONKEY BUSINESS (1)(mouse) Interactive story (age 7-10)

EDUCATION

PC TUTOR (1 disc) Good interactive computer tutorial.
TYPING TUTORS (1) Good tutors- PC TOUCH & FASTYPE.
GCSE (1) Choose Maths, Science, Physics, Comp. Studies.
SENIOR PHYSICS FACTS (1) UK program.
FRENCH TUTORS 1 & 2 (2) Multiple choice tests.

LIFESTYLE

HOROSCOPE/ASTROLOGY (1)Prints star Chart & analysis
HANDWRITING ANALYST (1) Thorough graphology program

MS WINDOWS PROGRAMS

WINDOWS GAMES (1 disc) 12 games, Poker, Yacht etc.
SCREEN PEACE (1) Set of screen saver programs.
ICON TOOLS (2) Let you edit, draw, view Icons.
ZIP MANAGER (1) File compression manager.
WINSPELL (1) Spell Checker for Windows.
WINCHESS (1) Very good chess game.
WINDOWS ALMANAC (1) Calendar. notepad, alarm etc.
WINDOWS WALLPAPER (2) 18 pictures for your desktop.
PAINT SHOP (1) Converts between BMP, PCX & GIF.
BIGDESK (1) Increase the working area of your desktop.
PARENTS (1) Genealogy program for Windows.
SNAPSHOT (1) Capture screens for use in other programs.

REGISTERED PACKAGES

We can supply registered versions of many titles. When you register, you get a printed manual, technical support etc. We can also try to register on your behalf, programs not listed here, but this would take a little longer. Prices are inclusive of VAT and P&P.

HENRIETTAS BOOK OF SPELLS £24.99	HOORAY FOR HENRIETTA £24.99
ZEPHYR £58.75	FINGERPAINT £30
PC FILE 5 £116.33	GALAXY PROLITE £57.58
AUTOMENU £64.63	AS-EASY-AS £52.88
FILE EXPRESS £76.38	ODYSSEY £104.58

PAGE FINANCIAL CONTROLLER £233.83
PKZIP £34.08 PKZMENU £34.08 PKLITE £34.08
(All three of the above £81.08)
PCX-SHOW £59.50 BOOT.SYS £34.08

We also have many more programs available please 'phone to confirm latest prices.

You can order the following games from us:

COMMANDER KEEN Vol 1	Levels 1, 2, & 3 £34.08
COMMANDER KEEN Vol 2	Levels 1 & 2, £34.08
COMMANDER KEEN Vol 3	16 more Levels £34.08
DUKE NUKEM	Levels 1, 2, & 3 £34.08
DARK AGES	Levels 1, 2, & 3 £34.08

Plus many more!

PROGRAM OF THE MONTH: HYPERDISK (1) (HD) New version of the Disc Caching program that improves hard disc performance by 300% to 1,000%! Windows compatible.

SPECIAL OFFER: For every 10 discs ordered, choose one extra disc FREE!

Dept PD7, TESTWARE (UK) LTD, 46 The Avenue, Harrogate, N. Yorks. HG1 4QD

24 hour dispatch by first class post. Many more programs available. ACCESS, VISA, & SWITCH cards accepted.